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ORIGINAL LECTURES.

NOTES OF A LECTURE ON THE PRESENT STATE OF KNOWLEDGE AS TO THE STRUCTURE AND FUNCTIONS OF NERVE.

DELIVERED AT THE

Royal Institution of Great Britain, May 15, 1857.

By THOMAS H. HUXLEY, F.R.S.

Fullerian Professor of Physiology, Royal Institution.

The speaker commenced by directing the attention of the audience to an index, connected with a little apparatus upon the table, and vibrating backwards and forwards with great regularity. The cause of this motion was the heart of a frog (deprived of sensation though not of life) which had been carefully exposed by opening the pericardium, and into whose apex the point of a needle connected with the index had been thrust. Under these circumstances the heart would go on beating, with perfect regularity and full force, for hours; and as every pulsation caused the index to travel through a certain arc, the effect of any influences brought to bear upon the organ could be made perfectly obvious to every one present.

The frog's heart is a great hollow mass of muscle, consisting of three chambers, a ventricle and two auricles, the latter being separated from one another by a partition or septum. By the successive contraction of these chambers the blood is propelled in a certain direction; the auricles contracting force the blood into the ventricle; the ventricle then contracting drives the blood into the aortic bulb; and it is essential to the full efficiency of the heart as a circulatory organ, that all the muscular fibres of the auricles should contract together; and that all the muscular fibres of the ventricle should contract together; but that the latter should follow the former action after a certain interval.

The contractions of the muscles of the heart thus occur in a definite order, and exhibit a combination towards a certain end. They are rhythmical and purposive; and it becomes a question of extreme interest to ascertain where lies the regulative power which governs their rhythm.

If we examine into the various structures of which the heart is composed, we find that the bulk of the organ is made up of striped muscular fibres, bound together as it were by connective tissue, and lined internally and externally by epithelium. Now it is certain that the regulative power is not to be found in any of these tissues. The two latter may, for the present purpose, be regarded as unimportant, as they certainly take no share either in producing or guiding the movements of the heart. The muscular tissue, on the other hand, though the seat of the contractility of the organ, requires some influence from without, some stimulus, in order to contract at all, and having once contracted, it remains still until another stimulus excites it. There is, therefore, nothing in its muscular substance which can account for the constantly recurring rhythmical pulsations of the heart.

Experiments have been made, however, which clearly show that the regulative power is seated, not only in the heart itself, but in definite regions of the organ. Remove the heart from the body, and it still goes on beating; the source of the rhythm is therefore to be sought in itself. If the heart be halved by a longitudinal section, each half goes on beating; but if it be divided transversely, between the line of junction of the auricles with the ventricle and the apex of the latter, the detached apex pulsates no longer, while the other segment goes on beating as before. If the section be carried transversely through the auricles, both segments go on beating; and if the heart be cut into three portions by two transverse sections, one above the junction of the auricles and ventricle, and one below it, then the basal and middle segments will go on pulsating, while the apical segment is still. Clearly then, the source of the rhythmical action, the regulative power, is to be sought somewhere about the base of the auricles, and somewhere about the junction of the auricles and ventricles.

Now there is in the frog's heart, besides the three tissues which have been mentioned, a fourth, the nervous tissue. As Bidder has shown, a ganglion is placed at the base of the heart, where the great veins enter the auricles, from which two cords can be traced traversing the auricular septum, and entering two other ganglia placed close to the junction of the auricles with the ventricles. From these ganglia nerves are distributed to the muscular substance. Now we know, from evidence afforded by other striped muscles and nerves, that the contraction of the former is the result of the excitement of the latter; in like manner, we know that the ganglia are centres whence that excitement originates. We are therefore justified, analogically, in seeking for the sources of the contractions of the cardiac muscles in the cardiac ganglia; and the experiments which have been detailed—by showing that the rhythmical contractions continue in any part of the heart which remains connected with these ganglia, while it ceases in any part cut cut off from them—prove that they really are the seats of the regulative power.

The speaker then exhibited another very remarkable experiment (first devised by Weber) which leads indirectly to the same conclusion. An electro-magnetic apparatus was so connected with the frog upon the table, that a series of shocks could be transmitted through the pneumogastric nerves. When this was done, it was seen that the index almost instantly stopped, and remained still, so long as the shocks were continued; on breaking contact, the heart remained at rest for a little time, then gave a feeble pulsation or two, and then resumed its full action. This experiment could be repeated at will, with invariably the same results; and it was most important to observe, that during the stoppage of the heart the index remained at the lowest point of its arc, a circumstance which, taken together with the distended state of the organ, showed that its stoppage was the result not of tetanic contraction, but of complete relaxation.

Filaments of the pneumogastric nerve can be traced down to the heart, and whenever these fibres are irritated the rhythmical action ceases. The pneumogastric nerves must act either directly upon the muscles of the heart, or indirectly through the ganglia, into which they can be traced. If the former alternative be adopted, then we must conceive the action of the pneumogastic nerve upon muscle to be the reverse of that of all other nerves—for irritation of every other muscular nerve causes activity and not paralysis of the muscle. Not only is this in the highest degree improbable, but it can be demonstrated to be untrue; for on irritating, mechanically, the surface of the heart brought to a standstill by irritation of the pneumogastrics, it at once contracts. The paralysing influence therefore is not exerted on the muscles, and as a consequence, we can only suppose that this "negative innervation," as it might be conveniently termed, is the result of the action of the pneumogastric on the ganglia.

It results from all these experiments, firstly, that nerve substance possesses the power of exciting and co-ordinating muscular actions: and secondly, that one portion of nervous matter is capable of controlling the action of another portion. In the case of the heart it is perfectly clear that consciousness and volition are entirely excluded from any influence upon the action of the nervous matter, which must be regarded as a substance exhibiting certain phenomena, whose laws are as much a branch of physical inquiry as those presented by a magnet.

Now, (still carefully excluding the phenomena of consciousness,) we shall find on careful examination, that all the properties of nerve are of the same order as those exhibited by the nervous substance of the heart. Every action is a muscular action, whose proximate cause is the activity of a nerve, and as the muscles of the heart are related to its ganglia, so are the muscles of the whole body related to that great ganglionic mass which constitutes the spinal marrow, and its continuation the medulla oblongata. This cranio-spinal nervous centre originates and co-ordinates the contractions of all the muscles of the body independently of consciousness, and there is every reason to believe that the organ of consciousness stands related to it as the pneumogastric is related to the cardiac ganglia; that volition, whether it originates, or whether it controls action, exerts its influence not directly on the muscles, but indirectly upon the cranio-spinal ganglia. A volition is a conscious conception, a desire; an act is the result of the automatic, unconscious origination and

co-ordination, by the eranio-spinal ganglia, of the nervous influences required to produce eertain muscular eontraetions.

Whatever may be the ultimate cause of our actions then, the proximate cause lies in nerve substanee. The nervous system is a great piece of meehanism plaeed between the external world and our conseiousness; through it objects affect us; through it we affect them; and it therefore bccomes a matter of the highest interest to ascertain how far the properties and laws of aetion of nerve substance have been ascertained by the physiological philosopher.

Nerve substance has long been known to consist of two elements, fibres and ganglionie corpuscles. Nerve fibres are either sensory or motor, and the activity of any one fibre does not influence another. But when nerve fibres eome into relation with ganglionic corpuscles, the excitement of a sensory nerve gives rise to that of a motor nerve, the ganglionie eorpuseles acting in some way as the medium of eommunication. The "grey matter" whieh occupies the middle of the spinal marrow has long been known to be the loeality in which the posterior roots, or sensory fibres, of the nerves of the body, and the anterior roots, or motor fibres, come into relation with ganglionic corpuseles; and as the channel by which, in what are ealled reflex actions, the activity of the sensory nerves is converted into excitement of eorresponding motor nerves. The precise *modus operandi* of the grey matter has been much disputed, but the recent researehes of Wagner, Bidder, Kupfer, and Owsjannikow, throw a great light upon, and vastly simplify the whole problem. It would appear that all nerve fibres are processes of ganglionic corpuseles; that, in the spinal eord, the great mass of the grey matter is nothing but conneetive tissue, the true ganglionic corpuscles being comparatively few, and situated in the anterior horns of the grey substance; finally, it would seem that no ganglionie corpuscle has more than five processes; one, which beeomes a sensory fibre and enters the posterior roots of the nerves; one, a motor fibre whieh enters the anterior roots; one, which passes upward to the brain; one, which crosses over to a ganglionie corpuscle in the other half of the cord; and perhaps one establishing a connexion with a ganglionic corpusele on the same side.

It is impossible to overrate the value of thcsc discoveries; for if they are truths, the problem of nervous action is limited to these inquiries: (a) What are the properties of ganglionic corpuscles? (b) What are the properties of their two, or three, commissural proeesses? For we are already pretty well acquainted with the properties of the sensory and motor processes.

A short account was next given of the physieal and physiological phenomena exhibited by active and inactive nerve; and the phenomena exhibited by aetive nerve were shown to be so peculiar as to justify the application of the title of "nerve foree" to this form of material energy.

It was next pointed out that this force must be regarded as of the same order with other physieal forces. The beautiful methods by whieh Helmholtz has determined the velocity (not more than about eighty feet in a second in the frog), with which the nervous foree is propagated, were explained. It was shown that nerve force is not electrieity, but two important facts were cited to prove that the nerve force is a correlate of eleetricity, in the same sense as heat and magnetism are said to be eorrelates of that force. These facts were, firstly, the "negative deflection" of Du Bois Raymond, whieh demonstrates that the activity of nerve affects the eleetrieal relations of its partieles; and seeondly, the remarkable experiments of Eekhard (some of which the speaker had exhibited in his Fullerian eourse), which prove that the transmission of a eonstant eurrent along a portion of a motor nerve so alters the molecular state of that nerve as to render it ineapable of exciting eontraetion when irritated.

These facts, even without those equally important though less thoroughly understood experiments of Ludwig and Bernard, which appear to indicate a direct relation between nerve force and chemieal change, seem sufficient to prove that nerve forec must henceforward take its place among the other physical forces.

This then is the present state of our knowledge of the structure and functions of nerve. We have reason to believe in the existence of a nervous force, whieh is as much the property of nerve as magnetism is of eertain ores of iron; the veloeity of that foree is measured; its laws are, to a certain extent, elucidated; the structure of the apparatus through which it works promises soon to be unravelled; the directions for future inquiry are limited and marked out; the solution of all problems eonnected with it is only a question of time.

Science may be congratulated on these results. Time was when the attempt to reduee vital phenomena to law and order, was regarded as little less than blasphemous: but the mechanician has proved that the living body obeys the meehanical laws of ordinary matter; the chemist has demonstrated that the component atoms of living beings are governed by affinities, of one nature with those which obtain in the rest of the universe; and now the physiologist, aided by the physieist, has attaeked the problem of nervous action—the most espeeially vital of all vital phenomena—with what result has been seen. And thus from the region of disorderly mystery, which is the domain of ignoranee, another vast province has been added to seience, the realm of orderly mystery.

A COURSE OF LECTURES

ON THE

NATURE AND TREATMENT OF THE DISEASES OF THE EAR,

DELIVERED AT

St. Mary's Hospital Medical School.

By JOSEPH TOYNBEE, F.R.S.

Aural Surgeon to St. Mary's Hospital, Leeturer on Aural Surgery at St. Mary's Hospital Medical School, and Consulting Aural Surgeon to the Asylum for the Deaf and Dumb.

(Reported by JAMES HINTON, Esq.)

(Concluded from Vol, XXXV. p. 612.)

LECTURE XIV.

RUPTURE OF THE MEMBRANA TYMPANI.

CASES.

Membrana tympani ruptured by an unexpeeted box on the ear.—Master G., aged 14, was brought to me on June 2, 1852, on account of an unexpected sensation in the left ear each time that he blew the nose. The history of the affection was as follows:—Five days ago, as he was sitting still, his tutor came quietly behind him, so that he was not aware of his presence, and gave him a gentle box on the left ear, which produced an instantaneous pain deep in the ear. On using his pocket-handkerehief afterwards, he experienced a tingling and clicking in the ear, and since then has had pain in the ear at times, and, on occasion, a drop or two of blood escaped from the ear. Upon inspection a small orifice was observed at the lower part of the membrana tympani, about a third of a line in diameter. Its borders were white. Air passed through upon holding the nose, and blowing gently. The wateh was heard at the distanee of a foot. As there was some slight pain, a leech was ordered to be applied below the ear every second night. This was continued for ten days, at the end of whieh time the pain had disappeared, the orifiee had closed, and the hearing power returned.

Rupture of the membrana tympani by a blow on the ear with a bolster.—Master K——, aged 14, was seen by me in consultation with Mr. Keal, on Dec. 20, 1855, on account of an unpleasant sensation in the left ear. Its origin was as follows:—A week ago was engaged in a "bolstering match" at sehool, during whieh he received a blow with a bolster on the left ear, which caused him pain. In the morning, upon using the pocket-handkerchief, he found that air rushed out of the left ear, so that he was obliged to place his finger upon the ear while he blew the nose. Upon examining the ear a rent was observed in the membrana tympani, running from the lower extremity of the malleus downwards to the inferior parts of the membrane. The margins of the rent were in contact, but the air passed through with the slightest pressure from the fauces. The hearing power was natural. He was ordered a little evaporating lotion to apply on cotton to the orifice of the meatus. Twelve days after the margins of the orifiee were observed to be swollen, and a small coagulum of blood attached to them; air passed into the tympanum from the fauces, but it did not eseape through the aperture. When I saw this patient after another fortnight the orifice was quite closed, but the cicatrix remained.

Membrana tympani ruptured by blowing the nose forcibly.—Miss S. A. N., aged 16, consulted me on February 5, 1850, on account of pain and discharge from the right ear, accompanied by dulness of hearing in both ears. Her friends stated that she had had for a long time the habit of blowing the nose very violently, and when doing so four or five months ago, she felt as if something had given way in the right ear, and since that time has had discharge from it. Whenever the nose is blown air rushes out of the right ear, accompanied by a loud squeaking sound. Upon examination of the right ear, the membrana tympani was observed to be covered by a mucus, and when the nose was blown air was observed to issue from the tympanic cavity, through a valvular fissure at the posterior part of the membrane. The watch was heard at a distance of two inches. The treatment pursued consisted in applying leeches to the margin of the meatus, in syringing out the ear with a week solution of liquor plumbi in water, and in keeping up a slight discharge from the surface of the mastoid process. It was, however, only by slow degrees that the discharge diminished, and the orifice in the membrane closed; the membrana tympani did not regain its natural appearance, the part of it posterior to the malleus having fallen inwards towards the promontory.

Rupture of the membrani tympani by a twig: injury to chorda tympani nerve.—J. L., Esq., aged 19, consulted me on Sept. 25th, 1856. A week previously, while engaged in shooting, he was endeavouring to force his way through a hedge, and turning sharp round with the view of picking up a bird, a twig passed into the right meatus, producing a sudden and severe pain at some distance in, followed immediately by deafness and a little bleeding, which has continued to a slight extent every night since. A buzzing noise in the ear supervened soon after the accident. The pain speedily subsided.

Examination.—The right meatus contained a little coagulated blood, on removing which by the syringe the membrana tympani was observed to present a rupture extending through the greater part of its diameter, a little posterior and parallel to the handle of the malleus. The edges of the orifice were red and swollen. Air passed through it when the tympanum was inflated. The watch was only heard on contact. A leech was applied to the orifice of the meatus, and a mildly astringent gargle applied gently by the syringe twice a day. On October 4th the orifice had entirely healed, the buzzing noise had almost ceased; the hearing distance was half an inch. This patient returned to India, but intelligence has been received that the hearing has greatly improved.

For several days after the laceration of the membrane in this case, there was a feeling on the same side of the tongue as if something cold had been rubbed over it, and the taste on that side was impaired. The tongue was quite natural in appearance and movements, and its sensibility to a touch was the same on both sides.

Rupture of the membrana tympani by the bursting of a gun. Recovery.—H. S., Esq., aged 28, consulted me in September, 1856. Six days ago was shooting, when the gun burst in his hand, producing an immediate deafness in the left ear, followed two days ago by a discharge of a watery character, and copious. Yesterday there was a slight aching pain, and for two or three days every pulsation of the vessels has been heard in the left ear. On examination the left meatus was found red and containing purulent discharge: the membrana tympana was red, and presented an aperture at its upper and posterior part of an oval shape, about a line in length and nearly a line in breadth, as if a portion of the membrane had been destroyed; the mucous membrane of the tympanum was red; the hearing distance was four inches. A leech was applied occasionally to the orifice of the meatus; the ear was kept clean by daily syringing, and afterwards a lotion, the nitrate of silver (ʒss. ad ʒj.) was applied on cotton wool, by means of a probe, to the surface of the membrane. The aperture slowly filled up as if by the deposit of fibrin on the margins, which for some time were thicker than the surrounding portion of the membrane, and in the course of six weeks it was entirely closed, and the hearing power perfectly restored.

In this case the right membrana tympani was previously ruptured, and the bursting of the gun produced no effect upon that ear.

The following is a tabular view of the condition of the membrana tympani in the dissection of 1013 diseased ears:—

Opaque	15
Vascular	7
Vascular and thick	3
Relaxed	4
Tense	10
Tense and atrophied	2
Inner surface connected to the promontory by bands of membrane	32
Inner surface adherent to the incus	9
Inner surface adherent to the stapes	4
Inner surface adherent to the stapes by membranous bands	11
Inner surface adherent to the incus	1
Inner surface adherent to all the ossicles	2
Inner surface adherent to all the ossicles and the promontory by bands	6
Outer surface more concave than natural	34
Outer surface more concave than natural, and thick	4
Outer surface more concave than natural, and opaque	2
Outer surface more concave than natural, and thick and opaque	1
Outer surface more concave than natural, and soft	2
Outer surface more concave than natural, and tense	2
Very concave externally, and the inner surface in contact with the promontory	10
Very concave externally, and the inner surface connected to the promontory by bands	13
Very concave externally, and the whole of the inner surface in contact with the inner wall of the tympanum; the tympanic cavity being obliterated	7
Very concave externally and thick, and adherent to the promontory	3
Thicker than natural	66
Thick and unyielding	5
Thick and white	12
Thick and soft	2
Thick and tense	5
Thick, and attached to the incus by membranous bands	1
Thick and vascular, and connected to the incus by bands	1
Thick and opaque	4
Thick, tense, and congested	2
Containing deposits of calcareous matter	14
Containing spots of cartilage	2
Flat externally	6
Flat, thick, and white	4
Epidermoid lamina thick	8
Epidermoid lamina absent	5
Dermoid lamina very vascular	1
Dermoid lamina very thick	4
Dermoid lamina very thick and vascular	3
Dermoid lamina detached from the fibrous laminæ	1
Radiate fibrous lamina absent, entirely destroyed by ulceration	3
Radiate fibrous lamina absent in parts	2
Dermoid and fibrous laminæ absent in parts, apparently from ulceration	3
Radiate and circular fibrous laminæ destroyed by ulceration in parts	6
Radiate and circular fibrous laminæ entirely destroyed by ulceration	4
Radiate and circular fibrous laminæ entirely destroyed by ulceration; the mucous lamina being attached to the promontory	2
Radiate and circular fibrous laminæ containing pigment cells	3
Mucous lamina thick	2
All the laminæ destroyed by ulceration except the epidermoid	3
All the laminæ destroyed by ulceration except the mucous	2
All the laminæ perforated	47
All the laminæ absent apparently from ulceration	21
All the laminæ perforated; the remaining portion of the membrane being adherent to the promontory	9
All the laminæ perforated and very thick	1
All the laminæ perforated, very thick and concave, and adherent internally to the promontory	2
All the laminæ perforated by molluscous tumours	2
Upper part of all the laminæ detached from the bone	2
The circular cartilage exposed	2

ORIGINAL COMMUNICATIONS.

TWO CASES OF REMOVAL OF A PORTION OF THE LOWER JAW.

By W. VESALIUS PETTIGREW, M.D., F.R.C.S.
Formerly Lecturer upon Anatomy and Physiology at St. George's School of Medicine, London.

Mrs. A. A., residing at Roby, Lancashire, aged 26, married, and of lymphatic temperament. Three years and a half ago experienced pain in the further molar tooth, on the right side of the lower jaw. The pain continued for a month, and then a small abscess presented itself, corresponding to the fang of the tooth, on the outer side of the gum. This abscess was opened, and for eighteen months after pus could at all times be pressed out. Shortly after the abscess was opened, the tooth was removed by Mr. Behrend, and the fang corresponding to the abscess was found denuded of its periosteum and diseased. The pain was partially relieved for a few weeks, but afterwards returned with severity, and at the end of eighteen months Mr. Bickersteth, jun., with Mr. Alty, determined to ascertain the cause of an enlargement, which had gradually been taking place from the outer and back part of the angle of the jaw, considerably protruding the cheek itself. Upon cutting down from above, the knife sank into a large cavity, from which escaped about a dessert-spoonful of pus and a great quantity of blood, and at the bottom of this cavity the crown of a tooth was felt. This tooth, which proved to be the dens sapiens, was with very considerable difficulty removed, a piece of lint afterwards placed in the hollow, and replaced as occasion required for the next thirteen months. The operation was followed, I am informed by Mr. Alty, with very great swelling of the integuments, the formation of an abscess under the jaw, fever, and delirium, all which symptoms however succumbed to the usual remedies in such cases. On the 10th of April I was requested to see Mrs. A. at Roby; and, upon examination of the right side of the lower maxilla, found a considerable enlargement of the side and angle of the bone, apparently composed of a thin crust, extending backwards. The two plates of bone appeared widely separated by a spongy-looking tumour that occupied this space, pushing the tongue underneath the teeth of the other side. The dens sapiens and two molar teeth were absent; there was no fœtor about the breath, but, of course, a difficulty in masticating food, also in deglutition and articulation. I had no hesitation in saying that removal of this portion of the jaw was the only measure that could be resorted to, for which purpose Mrs. A. came to London, where in consultation my opinion was confirmed by my friend Mr. Fergusson.

In the afternoon of May the 11th, Mrs. A. being placed under chloroform by Dr. Snow, who was most successfully enabled to keep up the influence of that anæsthetic the whole time of the operation, I proceeded to remove the mass of disease in the following manner:—

After taking out the nearest bicuspid tooth I made an incision immediately below the commissure of the lip, down to the margin of the jaw, and then as far as the edge of the masseter muscle, avoiding the facial artery; and after reflecting the flap and incising the gum within and without, I proceeded to divide the maxilla with Mr. Fergusson's saws, three or four in number; and great as this number may appear, still with good assistants little more time is lost than if one only was used, and there is a great advantage in using the graduated sized saws. I have since, however, constructed a strong saw with a moveable back, which I find on the subject most fully answers the purpose of the four saws. Having severed the bone, I next continued my incision up to the front of the ear, cutting upon the lower margin of the maxilla all the way; the flap was then reflected over the face—the masseter, parotid and everything else that was in the way dissected off; and finding the tumour extending but a short distance up the ramus of the jaw, I sawed the bone just below the coronoid process; having done this I separated the lining of the mouth, the buccinator and internal pterygoid muscles, and removed the mass of disease at once. Finding the separation of the plates of bone extending into the coronoid process and neck of the condyle, it was thought advisable to remove the bone at the socket; this was easily effected by forcibly drawing down the coronoid process by means of the lion forceps, carefully detaching the temporal muscle from its attachment, also the external pterygoid from its insertion, making an incision into the external lateral ligament of the joint, and with a twist detaching the bone from its socket. The arteries and veins, about fifteen in number, were then tied, the divided portion of jaw carefully examined, the flap turned back, and brought together by five or six sutures, and all the ligatures allowed to pass out of one pending opening, and the patient allowed to remain quietly for several hours upon the sofa; a little port wine and water being occasionally administered. At night 20 drops of liq. opii sedativ. were administered. The next two days there was from time to time considerable nausea, with much thirst, but no fever, the pulse being 76, and the skin moist.

May 13. — Removed on to the sofa, and enabled to take soup. Farinaceous food in wine and soda-water. Breath offensive, as also the discharge from the opening for the ligatures. Mouth to be gargled with port wine and water, and the cheek fomented with tepid water every six hours.

14th. — Dressed and in the drawing room, able to eat some fish and bread; all nausea gone.

15th.—Masticated chicken and vegetable for dinner. Removed the sutures, the wound having fairly healed, with the exception of the opening through which the ligatures passed.

18th.—Removed all the ligatures but one. Health good. Took a drive.

19th.—Drove out, and walked across Kensington gardens.

21st.—The remaining ligature removed, a day or two after which the opening closed, and Mrs. A. returned home to Roby convalescent.

Upon examination of the tumour and bone it was found that the walls of the maxilla were widely separated, the outer presenting much the appearance of a spina ventosa. The tumour, which occupied the space and bulged up from the alveoli into the mouth, was lobulated, sprung from the base of the bone, and was of a fibro-gelatinous nature, but not malignant. The very rapid recovery of the patient after so formidable an operation I attribute to at once well supporting her with stimulants and nutritious food; not allowing her to be kept in bed above two days, and getting her into the air as soon as possible; not at the same time forgetting that I had to treat a lady endowed with the most indomitable courage. Previous to the operation Mr. Samuel Cartwright constructed an ingenious instrument. This fits upon and fixes the teeth of the upper and lower jaw of the opposite side, for if not occasionally steadied there becomes a disposition for the teeth of the left side of the lower jaw to be retracted and drawn beneath those of the upper. This instrument answers its purpose admirably. I was indebted to Mr. Fergusson, Dr. Brown, Mr. Price, and Mr. F. W. Pettigrew, for their kind assistance at the operation.

Case 2.—Four years and a half ago, Mary Ann H., of Gillingham-street, Pimlico, aged 18, fair skin, reddish hair, and of strumous constitution, complained of pain and swelling at the angle of the right side of the lower jaw. The wisdom teeth of the opposite side and in the upper jaw had with pain made their appearance, and, from the inconvenience of their position, been removed. The tooth, however, on the right side had not yet shown itself, and the further molar extended as far as the alveolus would admit of. Thinking the tumour arose from irritation of the tooth imbedded in the jaw, and unable to extricate itself, I requested Mr. Cartwright to see the case, who was of the same opinion, and kindly extracted the further molar. Upon cutting down, no tooth could be felt, and the tumour increasing rapidly, it was thought advisable to remove this portion of the jaw. This I did at her own home, but in a most inconveniently small room. Mr. Potter administered successfully chloroform during the whole operation. An incision was made at once from a point opposite the canine tooth, and carried up in front of the ear. The integuments were reflected, and the facial artery bled so profusely that I was obliged to tie this vessel before proceeding further. The jaw was nearly sawn through opposite the first molar, and completed with the strong hand forceps. The masseter and parotid were then dissected off the ramus of the jaw, and the bone sawn through immediately under the coronoid process, the lining of the mouth and internal pterygoid were detached, and the whole of the tumour removed.

The progress of recovery was slow, and a month elapsed before the opening where the ligatures passed out healed up. Upon examination of the tumour it was found to include the

whole angle of the bone, and consisted of a soft, granulated condition of earthy matter, in the centre of which was a pulpy-looking substance, which we all considered arose from some abnormal condition of the pulp of the wisdom-tooth; at all events, we thought the disease to be malignant. The divided ends of the bone were free from disease. Two years after this time Miss H. again presented herself to me, complaining of much pain on the inner part of the alveolus, corresponding to the second bicuspid tooth. Feeling an induration at this point, I divided the gum, and to my surprise found the previously-sought wisdom-tooth make its appearance. From this time a rapid growth, quite of a different character, took place from the end of the divided bone, extending up towards the condyle, and also backwards.

February 26, 1857, Miss H. visited me, and requested I would again remove the tumour, as it was a source now of much pain, great inconvenience, and pulsated strongly upon the slightest fatigue or emotion. This latter was merely from enlarged superficial vessels. The necessity of the operation was manifest; but dreading again to undergo all the anxieties attendant upon so dangerous an operation in such an exceedingly inconvenient apartment, and the want of a proper Hospital nurse, I persuaded her to place herself under Mr. Fergusson, with all the advantages of his skill and the comforts of the Hospital. Mr. Fergusson, at my request, kindly undertook to perform the operation, as he thought it might yet be performed with safety. She reluctantly consented to go into a Hospital, and, however much I might regret losing my operation, I could not but feel highly gratified at being present and witnessing the masterly manner in which the operation was performed on the 2nd of May, which operation has been lately recorded in the *Medical Times and Gazette*, and the result has been laid before the Medical public.

7, Chester-street.

REPORT OF A CASE OF RUPTURE OF GRAVID UTERUS DURING LABOUR.

By HENRY GRAMSHAW, M.R.C.S. Eng., L.S.A.

On May 29, between 6 and 7 o'clock a.m., I was sent for by the midwife in attendance to see Mrs. Phillips, whose labour, she sent word, did not progress in the ordinary way. On visiting the patient, a young woman 24 years of age, the wife of a shoemaker, I found her lying in bed with a pinched and anxious expression of countenance, complaining of pain in front of the abdomen, which, she said, did not forward the birth of the child.

Previous history.—It appeared, on questioning her, that she was now in labour of her fourth child. Her three previous confinements had been difficult; and upon more close interrogation subsequently I learned that she was delivered of her first child by Mr. Derington, a Surgeon in this town, who performed craniotomy; of her second by a midwife—it was still-born, and she had phlegmasia dolens; of her third, a girl now living, 3 years old, also by a midwife; and in this case she made a good recovery. During present pregnancy she has been tolerably well till within the last two months, since which time she has suffered more or less pain and inconvenience in her right side; has not felt the child move for certainly a week past; not troubled with any amount of discharge till a few hours ago. Sharp pains commenced between 5 and 6 o'clock last night, when her labour appeared to set in with severity. The pains continued regularly through the night; but, according to the testimony of the midwife, without much propelling power. A considerable quantity of offensive discharge was passed, leading to the belief, in the early stage, that it was probably a breech presentation. Between 3 and 4 o'clock this morning, as near as she can guess, she felt something "give a sharp turn round, and fall," after which the pain was all in front. She had a great thirst come on, and drank nearly two quarts of water—nothing kept down but that. She had about half-a pint of cold ale given her by the midwife, but vomited it immediately—did not faint at all. About 6 o'clock the placenta came away (but without hæmorrhage), whereupon Medical aid was procured.

Present state.—After noting, as previously mentioned, the depressed aspect of the patient, I proceeded to make a vaginal examination. I found the funis hanging from the vulva; the placenta was separated from it, and shown to me in a chamber receptacle. It had the appearance of being partially decomposed, but was entire. On introducing my hand into the vagina towards the upper part I found a hand presenting; the pelvis was small, and the brim contracted; but what struck me most was the unusually glistening, bowel-like feel of the parts round the hand and arm. During my examination the patient screamed out that I was hurting her belly, and manifested an unusual degree of agony, very different from that shown in cases where the hand has to be introduced into the uterus with a view to turning. Being impressed with the grave character of the accident that I felt pretty sure had occurred, I availed myself of the opportunity of calling in another Practitioner to consult on the case before proceeding further. Mr. Derington met me without delay, and, after instituting an examination, agreed with me in opinion that a rent of the uterus had occurred, and that the child had escaped into the abdominal cavity Turning was immediately decided on and accomplished; but the extraction of the child was rendered difficult by the narrow brim of the pelvis, and also the extreme rigidity of the vagina and perinæum, which latter had not been subjected to any dilating agency. Finding the child's head locked at the brim, Mr. Derington perforated the skull through the mouth, and after breaking up the brain, the cranium being thus lessened was extracted: the fœtus was a male. No external hæmorrhage occurred, but violent pain in the front of the bowels was complained of. 40 minims of tinct. opii were administered, and repeated again every half-hour for three times, but without producing sleep or much mitigation of suffering. At 11 o'clock a.m., she commenced taking two table-spoons full every four hours of a half pint mixture, containing tinct. opii, ʒii.; aq. menth. pip., and mist., camph, aa ʒiv.; to this was added a pill containing hyd. submur. gr. i. pulv. opii gr. $\frac{1}{6}$. At 4 o'clock p.m. the violent pain which had been constant up to that time ceased, and the patient expressed herself as quite easy; she micturated two or three times; did not complain of faintness, and appeared to have more power of moving herself than one could have looked for. This state of ease continued till 3 a.m. on the following morning (Saturday, May 30,) at which time the pain returned with aggravated severity. On visiting her I found the pulse 120, not very hard, some abdominal tenderness, and the patient troubled by a cough, which she said "forced her inside down." She had passed a good deal of fluid, of the colour and appearance of serum mixed with blood. Tongue white but moist, intellect clear. I ordered 30 leeches to be applied over the bowels, and to continue the calomel and opium. 11 o'clock a.m., Saturday.—Has had no sleep since her delivery; cough still much complained of; pain a little less after the leeching, but now as bad as ever; lies with knees drawn up; can bear some pressure on the bowels—more than one would expect in peritonitis; has most pain about the epigastrium. To take her pills every two hours, and to promote the bleeding of the leech bites by light flannel fomentations. 1 p.m.—Rep. hirudines x. 4 p.m.—Pulse 130; vomiting; great tympanitis. Was again a little eased by the leeching, but complains of great pain in right hypochondriac and right lumbar regions; thirsty and restless, craving for sleep. 7 p.m.—Much in same state; to take a pill containing hyd. submur. gr. i., pulv. opii, gr. ss., every hour till sleep is produced.

Sunday, 31 May, 8 a.m.—After three doses of the pills last night drowsiness came on, and the pain was less, when they were administered more seldom. Still very thirsty, but has not been sick since midnight; drank a cup of tea this morning, and eat a small quantity of dry toast soaked in it; micturated once; could always sleep if not for the cough; tongue white and moist, still much pain in right lumbar region; discharge abundant of the serous character; she has been fomented through the night.

12 o'clock, Sunday.—To take ʒi. of ordinary saline medicine every 4 hours to abate thirst. 10 more leeches to be applied over right hypochondriac region; to take the pills every 2 hours.

10 o'clock p.m.—In a state of collapse; pulse imperceptible; evidently moribund.

Died at 3 a.m. on Monday morning, having survived delivery nearly three days and three nights, or just 67 hours.

Autopsy, twenty-eight hours after death—temperature 62°.—The deceased is a stout short woman, not badly made; a quantity of frothy fluid is pouring out of mouth; cadaveric

rigidity well marked; abdomen greatly distended, resembling a person just previous to labour; not much discoloration of any part. On making an incision down linea alba, there appears quite an inch of fat on abdomen, the front of which being laid open, discovers the effects of peritoneal inflammation. This (as might have been prognosticated from the symptoms) has been most intense in right lumbar region and about the liver, which viscus is coated with lymph; the bowels are glued together, but there is not much appearance of enteritis. In hypogastric region the uterus projects forwards, and around it is a quantity of coffee-coloured serum. On investigating it more narrowly, a large longitudinal rent is detectable on right side, extending from cervix to within two or three inches of fundus; the tear stops a little short of os uteri, and both bladder and vagina are uninjured.

I dissected out the uterus with its appendages; its walls were thick, but appeared to have suffered unequal dilatation, being thinner in some places than in others. On examining it internally through the rent, could perceive where the placenta had been attached, viz., at the back of the uterus, towards the fundus, and not over os uteri. The pelvis was narrow in its antero-posterior diameter, but the distortion was not excessive. The remaining viscera were healthy.

Remarks.—In reviewing this case, and the woman's previous history, I think we cannot doubt that the main cause of rupture was a disproportion between the size of the head and the capacity of the pelvis; added to which, it must be borne in mind that in all probability the fœtus was dead before the labour commenced, rendering the presentation perhaps more or less irregular; and it is a question if the presence of a dead fœtus in utero might not have produced a morbid state of its living coffin, predisposing it to rupture. Under the head of Quarterly Report on Midwifery, in the *British and Foreign Medico-Chirurgical Review* for April, 1857, mention is made of Dr. Trask's paper on the Statistics of Rupture of the Womb. To qute from the article in question: "Dr. Trask observes that his second collection of cases exhibits a larger proportion of instances in which the womb is reported to have been diseased than does his first. He attributes this to the greater attention directed to this point since 1848. It is especially desirable (the reviewer goes on to remark) in future investigations to examine the structure of the womb in the neighbourhood of the rent by the microscope, and to note if the muscular fibres are advanced in the process of fatty metamorphosis which takes place normally after labour."

With a view to throw light on this point, I sent the viscus to my friend Dr. Sloane, house-surgeon to the Leicester Infirmary (being a more practised microscopist than myself), and he reports thereon: "The muscular fibres in a portion of the uterus near the rupture had lost the regularity of their outline, and they were thickly studded over with small oil globules. There is no doubt that they had undergone fatty degeneration."

It will be noticed the fœtus was of the male sex, and the only living child that this woman had borne was a female. The midwife told me I should find the head presenting, so that I have no doubt it had done so originally, but when it got thrust through the uterus the placenta came in advance. I am inclined to attribute the very small amount of hæmorrhage to the fact of the fœtus being dead, consequently the placental circulation would be arrested, and only offensive discharges come away. It has been said that rupture generally takes place in the cervix, and the wound is transverse; here it was perpendicular, and almost from cervix to fundus, which rendered the delivery of the child practicable *per vias naturales*.

One rather curious feature about this case was that so serious an accident should take place without producing a greater and more immediate shock to the system. No sensation of anything bursting or giving way was experienced, and it was only by "trying back," so to speak, that I discovered she had felt the turning round movement, alluded to; it evidently had not struck her that anything alarming had occurred beyond the delay.

With regard to the after-treatment, the peritonitis, which set in called imperatively for leeches, opium, and calomel, which plan, believing it to be the only proper one, I persevered in, not without hope that though the case appeared a desperate one it might terminate in recovery, as Mr. Derington, from his previous experience of the patient, gave her the character of being of a tough and hardy constitution. In addition to the medicines prescribed, Dr. John Burns recommends acting freely on the bowels, but there are many reasons against such a plan, and I deemed it wise in this particular (albeit the cloth was different) to follow Parson Dale's maxim—*Non quieta movere.*

92, Rutland-street, Leicester.

THE LONDON

PRACTICE OF MEDICINE AND SURGERY.

STATISTICAL REPORT OF THE PRINCIPAL OPERATIONS PERFORMED DURING THE FIRST QUARTER OF 1857.

(Continued from Vol. XXXV. page 617.)

The subjoined Report includes, as usual, the following Hospitals:—University College, King's College, St. Bartholomew's, St. George's, Guy's, St. Thomas's, the London, the Middlesex, the Westminster, Charing-cross, St. Mary's, the Metropolitan Free, the Marylebone, the Hospital for Sick Children, and the "Dreadnought" Seaman's Hospital.

EXCISION OF THE BREAST, AND OF TUMOURS CONNECTED WITH IT.

Number of cases, 21. Recovered, 19. Died, 2.

Case 1.—St. George's: Mr. Cutler.—A woman, aged 35. The whole breast was removed on account of scirrhus, which was found to extend under the edge of the pectoral muscles and into the axilla. Recovered. *Case* 2.—The London: Mr. Curling.—A woman, aged 50.—Excision of the entire breast on account of scirrhus. Recovery. *Case* 3.—Guy's: Mr. Cock.—A woman, aged 42, in good health. Excision of part of the right breast on account of scirrhus. Recovered. *Case* 4.—St. Mary's: Mr. James Lane.—A healthy woman, aged 35. Excision of part of the breast on account of a mass of scirrhus, the size of a duck's egg. Recovery. *Case* 5.—Guy's: Mr. Cock.—A woman, aged 50, in good health. Excision of the whole left breast on account of cancer. Recovery. *Case* 6.—St. Thomas's: Mr. Solly.—A woman, aged 44. Excision of the breast on account of scirrhus. Recovery. *Case* 7.—King's College: Mr. Fergusson.—A married woman, aged 25, suspected to have uterine disease. Excision of three or four small but painful tumours in the right breast. Under the microscope the tumours proved to be mammary glandular. Recovered. *Case* 8.—Guy's: Mr. Cock.—A woman, aged 42, in poor health. Excision of the whole breast, on account of cancer. Recovered. *Case* 9.—The Charing Cross: Mr. Canton.—A woman, aged 55, in good health. Excision of part of the breast, on account of scirrhus. Recovered. *Case* 10.—Guy's: Mr. Birkett.—A woman, aged 45. Excision of the breast on account of scirrhus. Recovered. *Case* 11.—King's College: Mr. Bowman.—A woman, aged 48. Excision of the breast, on account of scirrhus. Recovered. *Case* 12.—The Metropolitan Free: Mr. Hutchinson.—A woman, aged 65. Excision of part of the breast and of several axillary glands, on account of scirrhus. Recovery. *Case* 13.—St. Bartholomew's: Mr. Coote.—A woman, aged 34. Excision of the breast, and of a gland from the axilla, on account of scirrhus. Recovery. *Case* 14.—St. Bartholomew's: Mr. Wormald.—A woman, of middle age. Excision of the breast on account of scirrhus. Recovery. *Case* 15.—St. Bartholomew's: Mr. Lawrence.—A woman, of middle age. Excision of the breast on account of scirrhus. Recovery. *Case* 16.—Guy's: Mr. Birkett.—A single, delicate woman, aged 50. Excision of an adenocele, about an inch and a half in diameter, and of nearly three years' growth. Recovery. *Case* 17.—The Middlesex: Mr. Shaw.—A woman, aged 45. Excision of the breast on account of scirrhus. Recovery. *Case* 18.—Guy's: Mr. Hilton.—A woman, aged 44, in good health. The whole breast was infiltrated and nodular, and was believed not to be malignant, although some doubts were entertained. A portion of it was harder than the rest, and gave more pain; it was accordingly excised. The pain was much relieved by the operation, but it is feared that the disease is cancer, and that the whole breast will eventually have to be removed. *Case* 19.—St. Thomas's: Mr. South.—A healthy-looking woman,

aged 43. Excision of the breast on account of scirrhus. Recovery. *Case* 20.—St. Bartholomew's: Mr. Lawrence.—A delicate woman, aged 38, for eighteen months the subject of scirrhus of the breast. Excision of the entire gland. Symptoms of pleurisy came on on the fourth day, and death supervened on the eleventh. *Case* 21.—King's College: Mr. Fergusson.—A woman, aged 49, thin and spare, but in good health. The whole breast was removed, and also a diseased gland from the axilla. The disease was scirrhus, and the tumour in the breast had not acquired adhesions to the muscle or skin. Amylene was used. In the evening there was some bleeding, and next morning it recurred to a larger extent. At noon the wound was opened, and a bleeding vessel secured. She had become very sunken and restless, and there was a large ecchymosis of the skin of the chest and back. Rigors occurred, and she scarcely slept at all. The operation was on January 24th, and death took place on January 28th. At the autopsy a large diffused abscess was found in the cellular tissue beneath the wound, and there was much adjacent ecchymosis. The lungs were engorged.

OPERATIONS FOR CARIES OF BONE.

(*See also "Excisions of Joints."*)

Case 1.—St. Mary's: Mr. Lane.—A man, aged 33, the subject of chronic disease about the ankle-joint. Two or three sinuses led down to exposed bone. There was much swelling, and the lower end of the fibula and the outer surface of the os calcis were carious. The diseased parts were laid freely open, and much carious bone removed by means of the gouge and forceps. Doing well. *Case* 2.—Guy's: Mr. Hilton.—A feeble lad, aged 18, the subject of diseased tarsus. A free incision was made over the inner row of bones, and the whole of the scaphoid, and the tarsal half of the adjoining metatarsal bone were removed. A removal of carious bone had been performed four years before, and subsequently amputation had been advised. Under treatment.

OPERATIONS FOR NECROSIS.

Operations of this class have been performed in 41 cases, and in 1 only has death followed (see below). All the other cases have either resulted in recovery, or remain under care with a view to further treatment. The following is an enumeration of the particular bones involved:—The femur in 15 cases, the tibia in 15, the humerus in 4, the radius in 2, the lower jaw, the scapula, the tarsus, and the fibula in 1 each. In one case of necrosis of the femur the operator was obliged to desist on account of the free hæmorrhage which followed his early incisions. The case which ended fatally was that of a man, aged 45, in poor health, under the care of Mr. Bowman, in King's College Hospital, on account of necrosis of one rib. He suffered also from fistula in ano and ulcer of the rectum. The diseased rib was cut down upon, and some small portions removed. The diseased part was just at the junction of the cartilage and rib, and the two had become separated. The operation was on March 28th. The wound did not heal, symptoms of tubercular pneumonia developed themselves, and death from hectic, &c., took place on May 7th.

ATTEMPTED ENUCLEATION OF A FIBROUS TUMOUR OF THE UTERUS.

The patient in this case was a married woman, aged 32, under the care of Mr. Baker Brown, in St. Mary's Hospital. She had suffered repeatedly and very severely from hæmorrhage in consequence of a large uterine fibrous tumour, but at the time of the operation appeared to be in fair health. Mr. Brown made an attempt to enucleate the tumour by the introduction of the hand, blunt hooks, &c., but could not succeed in getting it away. Considerable hæmorrhage having taken place it was judged best to desist, and the tumour being partially detached it was hoped that it might disintegrate, and come away piecemeal by sloughing. The woman, however, sank and died thirty hours after the operation.

REMOVAL OF NON-MALIGNANT TUMOURS.

Number of cases, 36. Recovered, 35. Died, 1.

Case 1.—St. Mary's: Mr. Lane.—A woman, aged 24, in good health. A tumour the size of a goose egg, of firm structure, of a year's growth, and of somewhat doubtful nature, was excised from the posterior triangle of the neck. Recovered. *Cases* 2 and 3.—In these cases pendulous masses, consisting of hypertrophied integument and subcutaneous tissue, were excised. Both did well. *Cases* 4, 5, and 6.—In these, all under the care of Mr. Coote in St. Bartholomew's, hypertrophic growths from the female genitals were removed by the écraseur. All recovered well. *Cases* 7 to 20.—In these, fatty tumours of considerable size were excised from different parts of the body. Recovery in all. *Cases* 20 to 26.—In these, encysted tumours were excised. Recovery in all. *Case* 27.—St. George's: Mr. Tatum.—A man, aged 37. Excision of a recurred fibro-plastic tumour in the left cheek. When the wound was nearly healed excision for a third time had to be performed, another growth having taken place. Recovered. *Case* 28.—St. George's: Mr. Cutler.—A man, aged 29. Excision of a fibrous tumour from the left mammary region, which had existed five years. It extended from the border of the axilla to the nipple, but was loose and moveable. Recovery. *Case* 29.—St. George's: Mr. Johnson.—Excision of a parotid tumour about the size of a walnut. It had deep attachments, and the sheaths of the vessels were exposed in the dissection. Recovery. *Case* 30.—St. Bartholomew's: Mr. Skey.—A man, aged 21. Excision of a cluster of fibro-nucleated tumours from the abdomen. Recovered. *Case* 31.—St. Bartholomew's: Mr. Stanley.—A woman, aged 42, in good health. A vascular growth on the forearm had been removed by ligature six months before, but had reappeared. A free excision was now practised, and the wound healed well. *Case* 32.—King's College: Mr. Fergusson.—A woman, aged 57. Excision of a large vascular fibrous tumour from the inner side of the thigh. Free hæmorrhage attended the operation, and some secondary bleeding took place next day. Recovered. *Case* 33.—St. Bartholomew's: Mr. Lloyd.—A woman, aged 33, in good health. Excision of a parotid tumour of moderate size. Recovery. *Case* 34.—Guy's: Mr. Cock.—A girl, aged 11, in good health, the subject of a fibrous tumour the size of a pigeon's egg, in the left forearm, a little below the bend of the elbow. In the dissection it was found to be intimately connected with the muscles, and the radial artery having been divided required ligature at both ends. The wound healed well. *Case* 35.—Guy's: Mr. Birkett.—A man, aged 60. Excision of a horny growth from the lower lip. Recovery. *Case* 36.—St. Bartholomew's: Mr. Lloyd.—A man, aged 55, the subject of a large parotid tumour, which had existed for forty-five years. Excision. Death from erysipelas on the fourteenth day.

REMOVAL OF MALIGNANT TUMOURS.

Number of cases, 15. Recovered, 14. Died, 1.

Case 1.—St. Thomas's: Mr. Solly.—A man, aged 42, in fair health. A large growth, having all the characters of soft cancer, existed on the left side of the neck, having been of only five weeks' growth. An excision was attempted, but on account of bleeding, etc., it was not found practicable to remove the whole. The tumour grew again before the wound had healed. *Cases* 2 and 3.—Charing Cross: Mr. Hancock.—In these men, aged respectively 60 and 35, had epithelial cancers of the lip excised. Both did well. In the latter the disease was very extensive, and involved a large portion of one cheek. *Case* 4.—King's College: Mr. Fergusson.—A man, aged 59, the subject of a small cancerous ulcer on the gum. The cautery had been used, but the disease had returned. Free excision. Recovery. *Case* 5.—King's College: Mr. Fergusson.—A man, aged 40, in good health, the subject of a large melanotic tumour in the inner side of the thigh. The primary disease, a melanotic growth on one toe, had been removed five years before. Excision. Recovery. *Cases* 6 and 7.—Guy's: Mr. Cock.—Two men, aged respectively 58 and 40. In each case an epithelial cancer of the lower lip was excised in the usual way. Recovery in both. *Case* 8.—St. Thomas's: Mr. Solly.—A man, aged 32. Excision of an ulcerated cancerous growth from the cheek. Recovery. *Case* 9.—St. Thomas's: Mr. South.—A man, aged 60. Excision of an epithelial cancer from the lip. Recovery. *Case* 10.—Guy's: Mr. Hilton.—A man, aged 33, in fair health. A large fibroid growth was dissected out from the palmar surface of the hand. It had been growing for a year. The wound never quite healed, and the disease having recurred, the hand was amputated three months afterwards. *Case* 11.—Guy's: Mr. Cock.—A man, aged 37, in good health. An epithelial cancerous ulcer was excised from the cheek and side of the nose. Recovered. *Case* 12.—St. Bartholomew's: Mr. Stanley.—A man, aged 57, in good health. Excision of a cancerous ulcer from one heel. It proved to be epithelial, with some melanotic deposit intermixed. Recovered. *Case* 13.—The Middlesex: Mr. Henry.—

A man, aged 46, for two years the subject of epithelial cancer of the lip. Excision. Recovery. *Case* 14.—The Middlesex: Mr. De Morgan.—A man, aged 70, suffering from ulcerated cancer of the tip of the tongue. The disease was of eighteen months' duration. The part was removed with the écraseur, and almost without bleeding. The wound healed well. *Case* 15.—St. Bartholomew's: Mr. Lloyd.—A highly nervous man, aged 40. Excision of a small rodent ulcer from the face. Death from erysipelas about three weeks afterwards.

REMOVALS OF EXOSTOSES.

Case 1.—King's College: Mr. Fergusson.—A lad, aged 16. Excision of an exostosis, about the size of a walnut, from the humerus. The growth had sprung from the site of an injury several years before. Recovered.

Case 2.—King's College: Mr. Fergusson.—A woman, aged 23. Excision of a small exostosis from the inner condyle of the femur. Recovery.

Case 3.—Guy's: Mr. Birkett.—A man aged 27. Excision of an exostosis of moderate size from the outer condyle of the left femur. Recovered.

OPERATIONS FOR EPULIS.

Operations of this class have been performed in ten cases, and in none did any material ill consequences ensue.

THE RADICAL CURE OF HERNIA.

Wützer's operation, for the radical cure of hernia, has been performed in five cases—twice by Mr. Coote, once by Mr. Erichsen, and twice by Mr. Hutchinson. Three of the cases were quite successful, and in all the patients recovered. The cases which failed—one of Mr. Coote's, and one of Mr. Hutchinson's—were very large herniæ indeed; in the former, the plug, although retained, was not sufficient to keep the bowel from protruding; and in the latter, owing to the pain caused, it was necessary to remove the instrument on the fourth day, and the plug came down again.

PLASTIC OPERATIONS.

For double hare-lip in five cases, and for single in four. All successful.

For the relief of the contracted cicatrices of burns in six cases; in all with more or less of benefit.

For cleft palate in two, Both successful.

For prolapsus uteri, etc. in four. All successful, as far as the operation was concerned.

Taliacotian operation (for new nose) in one. After repeated operations, a not very sightly organ was obtained.

For vesico-vaginal fistula in one. Failure.

OPERATIONS FOR NÆVUS.

By ligature in ten, by seton in three, by injection of the terchloride of iron, etc. in five, by excision in two. In none did a fatal result ensue, and in most the disease was permanently cured. *Case* 21.—The Middlesex: Mr. Shaw.—A woman, aged 39; admitted on account of a nævus on the tip of the tongue, which had existed since birth. It was removed by the écraseur, and the wound healed well.

TREPHINING OF BONE FOR ABSCESS.

A man, aged 18, was under Mr. De Morgan's care in the Middlesex Hospital, on account of the symptoms of abscess in the tibia. He had suffered for three years. The trephine was used, but no matter was found. The pain was, however, completely relieved by the operation, and at the time of report it was hoped that the cure would be complete.

OPERATIONS FOR STRICTURE OF THE URETHRA.

Case 1.—Charing Cross: Mr. Hancock.—A man, aged 45, was admitted on account of retention and extravasation of urine. He had suffered from stricture for twenty years. The extravasation had occurred four days before his admission, and the whole scrotum was very greatly distended. He was exceedingly ill. On the following day Mr. Hancock had him placed in the lithotomy position, and made a free incision in the median line of the perinæum upon the end of a catheter which had been passed up to the stricture. The stricture was divided, and the catheter passed on into the bladder. The man sank, and died about twenty-one hours afterwards. At the autopsy the integument of the abdomen was found in a state of slough, as also the cellular tissue of the penis and the right testis.

Case 2.—King's College: Mr. Fergusson.—A man, aged 44, in feeble health, for many years the subject of intractable stricture. No fistulæ existed. Perineal section was performed upon a catheter. A catheter was afterwards retained. All did well for the first fortnight, when symptoms of cystitis supervened, and the man sank into a state of great exhaustion. Death occurred on the 21st day. The wound had not healed, and the stricture was already re-contracting.

Case 3.—King's College: Mr. Fergusson.—A healthy man, aged 45, for many years the subject of a tight stricture. No fistulæ existed, but for two years past no instrument had been introduced, and it was with much difficulty that Mr. Fergusson succeeded in introducing even the smallest. Perineal section was performed, and a catheter retained for three weeks afterwards. He left the Hospital quite well a month after the operation, the urethra freely admitting No. 10, and the wound being quite healed.

Case 4.—King's College: Mr. Fergusson.—A man, aged 34, who had two years before submitted to perineal section, on account of a most troublesome stricture. For eighteen months after the operation he was able to pass his water well, but six months before admission the stricture again began to contract. Abscesses in the perinæum and scrotum formed. On February 4 Mr. Fergusson could not pass a No. 3. On February 12, in the operating theatre, a small catheter was got in, and perineal section was performed upon it. A large gum catheter was retained. He recovered but slowly, owing to his feeble state of health. He left the Hospital prematurely, the wound not being healed, on April 25.

Case 5.—The London: Mr. Curling.—A man, aged 41, in good health. The stricture was of old standing, and a very large one. Urinary fistulæ, and a long false passage existed. Perineal section was performed, and a catheter retained. Orchitis followed, terminating in abscess of the testicle. The wound had almost healed at the time of discharge, the stricture remaining patent. The fungous testis was also cured by pressure before the man was discharged.

Case 6.—Guy's Hospital: Mr. Cock.—A man, aged 47, previously in fair health, was admitted in an almost comatose state from retention of urine. He had suffered from stricture for twenty years, and for fifteen months past had had perineal abscesses and repeated attacks of retention. The scrotum and perinæum were much swollen, indurated, and burrowed by numerous fistulæ. No instrument could be introduced. The urine was densely coagulable, and disease of the kidneys was suspected. The operation, which was performed on March 17, consisted in opening the urethra behind the stricture, the latter not being divided. A female catheter was passed by the wound and retained. Rigors and vomiting followed, and the man sank with jaundice and all the symptoms of phlebitis on the eighth day. At the autopsy points of commencing suppuration were found in the kidneys, liver, and lungs; there was also a sloughing abscess between the prostate and pubes. The canal of the urethra was totally obliterated for a length of about an inch and a half anterior to the prostate.

Case 7.—St. Bartholomew's: Mr. Stanley.—A man, aged 36, for many years the subject of stricture. The stricture had been very intractable under dilatation treatment, and it was determined to resort to perineal section. This was accordingly performed on a grooved staff in the usual way. A catheter was retained. Free hæmorrhage followed half an hour after the operation, and required plugging for its restraint. The case has since then done well, but still remains under treatment.

Case 8.—St. Mary's: Mr. Ure.—A man, aged 42, in good health; for ten years the subject of stricture, and for four of fistula in perineo. Perineal section was performed. Erysipelas of the thighs and scrotum subsequently occurred. Under treatment.

Case 9.—The Middlesex: Mr. Moore.—In this case the bladder had been punctured by the rectum a month before. (See Case No. 4 below.) The stricture still remained impassable, and perineal section without a guide was accordingly performed. A catheter was retained afterwards, and the case progressed very well. Under treatment.

Case 10.—Guy's: Mr. Birkett.—A man, aged 45, the subject of stricture for twenty years. He had been in many Hospitals. There was great induration about the perinæum, and several fistulæ. No. 1 was introduced into the bladder a few days after admission, and subsequently larger sizes were got in. Still, however, the fistulæ could not be got to heal,

and perineal section was accordingly determined on. After its performance all did well, and the man made a complete recovery.

Case 11.—The London: Mr. Curling.—A man, aged 33, the subject for two years of stricture of the urethra, in front of, and behind the scrotum. Both were divided by external incision, and a flexible catheter was retained in the bladder. Under treatment.

PUNCTURE OF THE BLADDER.

Case 1.—St. Bartholomew's: Mr. Stanley.—A man, aged 55, in good health, admitted on account of a tight stricture. Some days after he had been in, retention occurred, and no catheter could be introduced. Under these circumstances, puncture of the bladder above the pubes was resorted to. All did well for a few days, but the man subsequently sank into a feeble state, and death took place on the seventh.

Case 2.—Guy's: Mr. Cock.—A man, aged 48, in a very bad state of health, was admitted with retention of urine. He had been repeatedly under Mr. Cock's care during the last fifteen years on account of a most intractable stricture. In 1847 puncture of the bladder by the rectum had been performed, after which he had recovered well. At present his state of health is exceedingly bad, and there were indications of an abscess about the prostate. Puncture of the bladder was again resorted to. He pulled out the canula during the following night, and afterwards urine flowed both by the urethra and the anus. The retention was completely relieved, and he did fairly for a few days. Death, however, took place ten days after the operation. At the autopsy abscesses were found in both kidneys.

Case 3.—A man, aged 86, in good health. Retention of urine from enlarged prostate having produced symptoms which did not admit of delay, and catheterism being impracticable, puncture by the rectum was performed. The retention had been complete for twenty-four hours. The man recovered.

Case 4.—The Middlesex: Mr. Moore.—A man, aged 30, formerly under the care of Mr. Birkett, in Guy's, by whom the bladder was punctured by the rectum about eighteen months ago. When admitted under Mr. Moore, his stricture had relapsed, so that micturation was very difficult, and retention often occurred. No instrument could be introduced, and puncture by the rectum was accordingly again practised. The stricture did not give way in the least afterwards, and perineal section was performed about a month later. (See above, Case No. 9.)

HOSPITAL NOTES.

CONSERVATIVE SURGERY, AND DISEASED METATARSAL BONES.

The subjoined case well illustrates the good results often obtained by the application of conservative principles to the surgical treatment of diseases of the lesser bones. It is one in which some years ago amputation would have been deemed inevitable. A girl, aged 8, was admitted into Guy's Hospital under Mr. Birkett's care on February 24, on account of disease of the metatarsal bone of the great toe. It had been bad between two and three months. A short time after her admission she was taken into the operating theatre, and placed under chloroform, with a view to the making of exploratory incisions and proceeding as might be found necessary. There was much surrounding swelling, and several sinuses leading to exposed bone. On examination the state of things proved as had been expected, there being necrosis without joint disease. The distal half of the metatarsal bone was detached at its epiphysis from the articular head, and above from the upper half of the bone. It was removed without any joint being opened. The girl, after only a short stay in the Hospital, left quite well, the wound being healed, and the toe only a little shorter than the other. We do not of course mean to assert that in former times amputation was resorted to in all cases of diseased bone of the toes or fingers. It is quite certain, however, that a great many such are now saved which would formerly have been sacrificed. To this end the use of chloroform has greatly conduced, since it enables the Surgeon to make exploratory incisions, and ascertain the exact condition of the bones prior to proceeding to amputation. We have repeatedly seen both fingers and toes preserved which, before the exploration, it had been quite intended to remove. These bones are so small that with much œdematous swelling about them it is very frequently impossible to tell whether or not the articular extremity is actually diseased. And on this point the whole question of treatment often turns. If the articular extremities are sound the disease is usually a necrosis of like character with what occurs in the case of the larger long bones, that is to say, the periosteum is left, and a more or less perfect substitute shaft will eventually be formed. That the amount of new bone thrown out for purposes of repair is in the case of these much less than it is with the femur or tibia, must be admitted. The new shell is not only much less perfect, but it is formed much more slowly. In the majority of cases, however, it is ultimately formed to a sufficient extent to prevent much shortening of the bone. We have repeatedly seen cases in which, at the time of the operation, two or three inches of the entire thickness of a metacarpal or metatarsal bone were removed, whilst only a few spiculæ existed at the time in the periosteum, and in which, therefore, shortening to a large extent appeared inevitable. Very generally, however, a new shaft has been produced, and the final result, as in Mr. Birkett's case just given, has been very much more pleasing than had been expected.

LIGATURE TREATMENT OF VARICOCELE.

In two cases recently under Mr. Hilton's care in Guy's Hospital, the ligature method of cure has been tried with good success. In the first a man, aged 17, in good health, suffered from varicocele of the left side, and for nine months had been much inconvenienced by aching in the loins, &c. He willingly consented to the proposed operation. Care being taken to isolate the veins from the cord, a long needle was passed behind the former, and a twisted ligature applied over its projecting extremities. The ligature was allowed to ulcerate out. No symptoms of phlebitis ensued, the veins were obliterated, and the man left the Hospital relieved of his disease. In the second case the patient was 22 years old, and had suffered from the affection for a longer time. The same measure was adopted, and with satisfactory results, although not such complete relief as in the first. It is a plan of treatment which Mr. Hilton not very unfrequently resorts to in severe cases.

CASES OF STRICTURE OF THE VAGINA.

Two cases of considerable interest as examples of contraction of the vagina are at present under observation. The first is that of a young married woman, an in-patient at St. Bartholomew's, under Mr. Coote's care. Her account is, that she had fever and sloughing of the private parts in infancy, but, as she believed, recovered perfectly. After that she left England, and a year ago, whilst at Valparaiso, married, when for the first time she was made aware of her condition. She had always menstruated regularly. Mr. Coote found, on examination, that the vagina was all but closed by a circular band of cicatricial tissue. Through the orifice only a small bougie could be passed. It was thought that incision treatment would be needful. The woman was, however, placed under chloroform, with a view to an attempt at dilatation in the first instance. When fully unconscious, the finger was, without much difficulty, forced through the stricture, which gave way readily to further dilatation. The woman remained under care in the Hospital some weeks, during which no recontraction took place. There appeared strong reason to expect that no further professional treatment would be necessary. The second case is one under the care of Dr. Ramskill and Mr. Hutchinson at the Metropolitan Free Hospital, and in which, as yet, no treatment has been adopted. Its history is very peculiar. The patient is a married woman, aged 48, the mother of a large family. She states that her labours have always been easy, and the last particularly so, and she knows of no cause whatever for the contraction of the vagina. It was first discovered about ten months ago by the pain occasioned during intercourse. Since that introitus has become impracticable, and on account of the conjugal unhappiness arising she applied for advice. She considers herself in good health, and has had no discharge nor any material pain in the parts. On examination, the vagina is found obstructed by a belt of induration low down, in the centre of which is an opening which admits with difficulty a No. 10 bougie. The thickening is very considerable and very dense, but there are no nodular growths nor any defined margin to it. Neither is there any ulceration.

Pressure causes very little pain. The deposit constituting the stricture is pretty equably placed, the canal being nearly in the centre. The bladder and rectum appear healthy, and there is nothing in the woman's appearance to suggest the idea of malignant disease. Still, perhaps, on the whole, the inference is strongest in the direction of the diagnosis of cancerous stricture, to which especially the absence of history of previous ulceration or injury points. It is proposed to exhibit chloroform, and then examine further, and dilate, if practicable; and, should this be done, we shall inform our readers of the result of the case.

RETENTION OF URINE FROM IMPACTED CALCULUS.

Retention of urine in children or young persons occurring suddenly, and independently of any febrile affection, is a symptom very generally indicative of an impacted calculus. It should always lead to a careful examination of the bladder and urethra. We instanced one, two weeks ago, in which a stone impacted had remained unsuspected for a long period, although it had caused distressing symptoms. When eventually removed (in Guy's, by Mr. Cook), it was of considerable size, and moulded to the parts in which it had been imbedded. That the treatment to be adopted in such cases is immediate excision, if the trial of the urethral forceps have failed, there can be no doubt. We have seen a considerable series of cases in which calculi were removed from different parts of the urethra by direct incisions, and have never known one do badly. Compared with lithotomy, it is a trifling operation. A case which has just occurred in the Marylebone Infirmary, under the care of Mr. Henry Thompson, has suggested the above remarks, which it well exemplifies. A boy, aged nine, was admitted from the workhouse school on account of being unable to pass his water. The catheter was employed by the house-surgeon, and the bladder emptied. Soon afterwards, however, a second attack of retention occurred. Mr. Thompson was now called. On using the catheter, he discovered a stone impacted in the urethra, just in front of the neck of the bladder. A small grooved staff was next tried, and having been made to enter the bladder, passing above the stone, was cut down upon in the median line. A calculus, about the thickness of a horse-bean, and fully half-an-inch long, was removed. The boy made a good recovery, and the wound perfectly healed. Although these cases occur far more frequently in young than in adult persons, yet they do now and then happen to the latter. A case was under the care of Mr. Hutchinson, in the Metropolitan Free, about two years ago, in which a man had been operated on for stricture by the perineal section. The wound remained fistulous for more than two months. At length one day the man had the stream of water which he was passing suddenly stop, and suffered extreme pain. On examination, a calculus was found impacted just behind the opening of the fistula into the urethra. It was excised, and the wound soon afterwards healed soundly.

THE SUFFERERS IN THE LATE RAILWAY ACCIDENT.

It was a singular feature in the results of the late accident on the North Kent line, that the proportion of severe injuries was small as compared with the number killed. About 40 were taken the same evening to St. Thomas's Hospital, but of these only 9 required admission. Of those admitted not one presented a compound fracture or other injury needing operation. Mr. Simon, under whose care they are, informs us that, as usual after these accidents, almost all present the effects of spinal concussion. In several the concussion is shown very irregularly, and in a manner not easily accounted for, by the known distribution of nerves. The shake, indeed, appears to have been most severe, and "numb feelings" in different parts, and often in a whole extremity are complained of by almost all who were subjected to it. None of those admitted have died, and, with one exception, all promise to do well. Three or four of those most injured were left near the site of the accident. The case not doing well is that of a middle-aged woman, whose face was lacerated in a frightful manner. From the inner angle of the left eye a laceration proceeded downwards through the lip; and a second passed from the left ear to the angle of the mouth. The whole left cheek was thus torn upwards, and reflected on to the temple. It was replaced, and secured by sutures and pins, and union by first intention followed. Excepting a severe attack of bronchitis, all was doing well until this morning (Thursday,) when erysipelas of the face showed itself, and part of the wound reopened. It is to be feared that the whole will give way again. The woman has also an extensive laceration about the chin, and a fracture of the left leg. Having been much reduced by bronchitis, she is not in a hopeful condition as regards recovery from the erysipelas.

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Medical Times & Gazette.

SATURDAY, JULY 4.

MIDDLE-CLASS EDUCATION AND THE MEDICAL PROFESSION.

The academic world has lately been agitated by an important movement. The object is to extend the benefits of general education throughout the middle classes of the community. The University of London, which has hitherto obtained its supply of Graduates from a number of Colleges, connected, or affiliated (as it is technically termed) to itself, has lately passed a law to throw open the competition of candidates for degrees to all comers, whether educated at a recognised College or not. A still more liberal measure has been adopted by the Universities of Oxford and Cambridge, which have consented, by recent enactments, to institute examinations at stated intervals for all persons who are willing to submit to them, and to confer some such title as Associate in Arts upon those who pass successfully through the ordeal.

We propose to offer a few observations upon these innovations on University routine, and upon their probable bearing on the future members of our Profession. In the first place, it is to be observed that the change in the constitution of the University of London has not been made without encountering the opposition, not only of the affiliated Colleges, which are affected by the new measures, but also of many of the Graduates of the University itself, who have been from time to time elected as members of its governing body, and who now possess a voice in the management of its affairs. It should be mentioned, that by the hitherto existing laws of the University, no candidate can present himself for examination unless he has been educated at some collegiate establishment recognised by the University, and has passed through a curriculum of study laid down by the Senate. The same principle regulates the law as laid down for Medical candidates, who must pursue their studies at some schools and hospitals which are defined in the authorized publications of the University. We may at once state that the proposed change does not extend to Medical candidates, and, therefore, the remarks about to follow refer only to the candidates for degrees in arts and laws.

It is argued by those who oppose the abandonment of the College test by the London University, that the affiliated Colleges will suffer a diminution of students and a consequent impairment of their efficiency, if the field be thrown open;

while those who approve the new measures, declare them to be in strict accordance with the liberal spirit in which the University was originally founded, and that they are calculated to increase the number and elevate the status of the Graduates. In our opinion there does not appear to be any great cause of apprehension that the Colleges will suffer much from the contemplated alterations; and it may be stated, on the other hand, that there does not seem much ground for anticipating any great increase of graduates from the liberality of the new enactments. The human mind must be trained somewhere, and although here and there a self-taught genius may be found who is able and willing to spend his days and nights in solitary toil, and who is moreover competent, without any academical instruction, to foresee the nature of the questions which are likely to be put to him by the examiners, yet the mass of students must be assisted in their progress by Professors and Tutors, in order to learn what to avoid as well as what to acquire during their period of pupilage. Ninety-nine students in a hundred, therefore, will still resort to the Colleges for their preliminary instruction, and they will resort to the best sources from which that instruction can be obtained. The hundredth individual, from poverty or from a dislike to collegiate restrictions, may perhaps pursue his solitary career to a successful result, and we think it highly desirable that every possible facility should be offered for the attainment of this object. But when we reflect, that in order to obtain a degree of Master of Arts in the University of London, a candidate must pass three full examinations, each lasting nearly a week, divided by stated intervals, and comprehending almost every branch of human knowledge, it seems probable that the number of those who will present themselves on the chance of succeeding by their own unaided powers will be exceedingly small.

The case of the Universities of Oxford and Cambridge is very different; for those time-honoured seats of learning have never aimed at great severity in their ordinary pass examinations (which, indeed, present no great obstacles to moderately well-educated pupils); but they rather derive their *prestige* from the eminent few who carry off the prizes and honours in the periodical intellectual contests, and from the associations connected with College life. The University of London systematically disregards collegiate discipline, but fixes a very high standard for success at its examinations; the Universities of Oxford and Cambridge, on the contrary, have required a very strict adherence to the discipline and the *curriculum* prescribed by ancient usage, but present no very formidable ordeal to the candidates for their ordinary degrees. Now, the step taken by these latter Universities, which consists in granting a kind of inferior degree to persons educated in different parts of the country, who are willing to present themselves for examination, is a far more really liberal measure, and one which is likely to be more extensively useful than the late relaxation in the requirements of the University of London; for, while the latter body aims at a standard which hardly any can attain, except those who have received a very extended, and probably very expensive, education, the ancient Universities, on the other hand, propose only a moderate examination, and a corresponding honorary title of which many fairly-educated young men, of average acquirements, may be ambitious.

In applying these remarks to the improvement of the future Practitioners of Medicine, we may refer to observations we have often had occasion to make upon the absence or deficiency of preliminary information in literature and science, as one of the standing evils of our Profession, but one which it is certainly in the power of the present generation to remove. Attempts have been made from time to time, with more or less success, by some of the Medical Schools and the Medical Examining Boards, to inspire a taste for polite learning among our *alumni*, and thus to secure to the future members of our body all those advantages which may be expected to flow from the pursuits of literature and the cultivation of exact science; and we have no hesitation in expressing our belief, that such preliminary employment of the mind would tend to make our successors sound Practitioners, educated gentlemen, and honourable men; and that the respect and esteem of the public would be increased towards us, in proportion to the advance of our scientific knowledge, and our progress in refinement of feeling and delicacy of behaviour to each other.

Now, without making any invidious comparisons between ourselves and the members of any other learned profession, we conceive that our own pursuits, embracing as they do the most extensive knowledge both of the objects of external nature and of the operations of the human mind, and requiring, moreover, in their practical bearing, the exercise of the noblest moral attributes of humanity, require the foundation of sound preliminary knowledge, or at all events of such an amount of literary and scientific acquirement as is necessary for the clergyman, the barrister, or the civil engineer; and yet it is notorious that, whether from the absence or the bad management of our training schools, or from the want of encouragement in high quarters to general scientific attainments on the part of Medical pupils, the latter do not hold in society so high a rank as is usually accorded those who aspire to the pulpit or the bar. The University of London very properly makes it imperative upon those who seek its Medical degrees to pass a Matriculation examination, of a very sufficient character, in classics, mathematics, and general literature and science; and we have seen with great regret that this very laudable regulation has most materially diminished the number of candidates for Medical degrees, who avoid the ordeal, and resort to Universities, the requirements of which are, perhaps, less strict. Now the test which it is proposed to institute on the part of the Universities of Oxford and Cambridge, for those who have been educated at the ordinary training schools throughout the country, will furnish a very fair criterion for determining whether a youth has so far profited by the instruction afforded him, as to be fit for entering upon the study of medicine; or whether he requires a further acquaintance with the ordinary branches of education; or whether his mental capacity is so low as to render it inexpedient that he should pursue the Medical Profession at all. By the scheme now proposed any youth of ordinary aequirements might obtain the preliminary degree of Associate in Arts, and this testimonial would be a sufficient evidence that he is competent to commence the study of medicine. The great error of some Medical Examining Boards is to require evidence of preliminary knowledge at the *close* of the period of Medical pupilage, instead of requiring it at the *beginning*. If the rising generation of Medical students could be induced, by the combined efforts of the examining bodies, to take the degree in question *before* commencing the studies immediately connected with the Profession, they would save infinite future trouble to themselves, and be enabled to practise with far greater benefit to the community.

THE WEEK.

The debate on Medical Reform in the House of Commons on Wednesday, a report of which will be found in another column, was one of the most animated of the session. The House was unusually full for a morning sitting, and the large majority of 147 in favour of Mr. Headlam's Bill took even its most ardent supporters by surprise. It was the more unexpected as the Government "whip" was exercised very freely in Lord Elcho's favour. The result, however, is on the whole

satisfactory; for it will be much easier to improve Mr. Headlam's Bill in Committee than to frame a new one. The Committee is fixed for next Wednesday, and it is then that the discussion on the constitution of the Council must be renewed. Then the clauses as to the relative rights of the Universities and Corporations in granting licences to practise must lead to debate; and we trust that the system of examination proposed for future General Practitioners in Mr. Headlam's Bill may be altered altogether. The clause, as it stands at present, is clearly the result of a compromise which cannot be carried out.

The Eastern Counties Railway have had to pay £669 damages for injuries sustained by an artisan in a railway collision. The plaintiff had brought actions for other accidents, in 1851 and 1852, against another railway and a private person; and a question arose whether the symptoms he complained of were the result of the former injuries. Mr. Evans, of Walthamstow, said, "I have attended the plaintiff ever since the accident. He suffers from concussion of the brain and chest, and some degree of concussion of the spine. I now consider him to be paralysed to a small degree, and unable to sustain the weight of his body on his right leg, and to use his right arm freely, but leaving the powers of motion of arm and leg very considerable. His face is drawn aside. I think it very doubtful whether he may recover from the injuries. Cross-examined.—I believe I attended him for the former accidents, but I have forgotten all about them. On the trial I stated that he had had concussion of the brain. I don't remember saying that his injuries were then permanent. I can't say that I have stated the plaintiff was not so bad as he pretended to be. I had my suspicions at one time, but they were removed. His symptoms have been worse since." Mr. Luke's evidence apparently had great weight with the jury. He said, "I am Senior-Surgeon of the London Hospital. We have 10,000 accidents in a year. I saw the plaintiff on the 11th of this month. He told me of other accidents. As regards this accident, the injury of his brain has led to a paralytic condition. His face is drawn slightly to the right side. He has lost considerable power of the right arm, and is unable to stand on the right leg. He complains of rushing, howling pains in his head. I saw no symptoms of exaggeration. I think it probable that the injury is permanent, with a probability of increase. Cross-examined.—If he had had concussion of the brain in 1851, and in 1852 suffered from delirium tremens and prolapsus ani, I do not think the concussion continued, because he had been perfectly well." Such cases should be known; for while Railway Companies are very apt to dispute just claims, it is well known that many fictitious claims are made upon them after every severe accident.

A libel case was tried a few days ago, in which Dr. Jones, M.D. of Giessen, but not a member of either of our Colleges or Halls, obtained £150 damages from the *Daily News* for certain comments made in that journal upon a patient Dr. Jones had treated in Paris. The case seems to have been one of delirium tremens, although the immediate symptoms were attributed to a blow on the head. A large quantity of reddish serum was found in the arachnoid cavity, but this was explained by injection of the body, according to the French law that a body must be embalmed if not buried within forty-eight hours. Dr. Jones had given the patient three-quarters of a grain of tartar emetic, and medical evidence was called to decide if this was proper treatment. Mr. Skey said, according to the *Times* report, "I have heard the description given by Dr. M'Arthy of Mr. Brettle's condition on the Friday, and of three-fourths of a grain of tartar emetic being administered to him. The effect would be prostration, and would, I should say, hasten his death. If there had been reason to suspect effusion on the brain, this medicine would have still been injudicious." Mr. Solly, agreeing in the main in the opinions expressed by Mr. Skey, when cross-examined, said—"The term 'delirium tremens' is applied to two different diseases, which may account for some medical men recommending tartar emetic, and others not, for delirium tremens." Re-examined—"For delirium tremens produced by recent excessive drinking, tartar emetic may be proper, but not for that disease when it is the effect of drinking from a long course of intemperance." Mr. Guthrie, formerly surgeon to the Westminster Hospital, agreed with the last witness. Mr. Partridge and Dr. Letheby thought that tartar emetic was properly employed under the circumstances of the case.

Within a very short time two young ladies have been burnt to death, owing to their light muslin dresses catching fire from a lucifer match—one in London, the other at Colchester. It ought to be generally known that all light ladies' dresses may be made fireproof at a mere nominal cost, by steeping them, or the linen or cotton used in making them, in a dilute solution of chloride of zinc. We have seen the very finest cambric so prepared held in the flame of a candle, and charred to dust, without the least flame; and we have been informed, that since Clara Webster, a dancer, was burnt to death, from her clothes catching fire on the stage, the muslin dresses of all the dancers at the best theatres are made fireproof. Our manufacturers should take the hint.

Among the band of heroes decorated by Her Majesty with the Victoria Cross on Friday, *one* Medical officer was distinguished. Dr. Hale, Assistant-Surgeon of the 7th, well deserved the honour bestowed on him. He remained with wounded men in the advanced works after all others had retired, endeavoured to rally our own men, cleared the most advanced sap of the wounded, and carried several wounded men from the open ground under heavy fire. We have recorded from time to time similar deeds of valour performed by other Medical officers of the army and navy, and it is to be hoped that Dr. Hale may not very long remain the only member of our Profession decorated with the Order of Valour.

In the Court of Queen's Bench, in Ireland, Dr. White brought, during the present week, an action against the Waterford and Kilkenny Railway Company, to recover compensation for permanent injuries sustained by the plaintiff through the negligence of the servants of the Company, and for the damage resulting from the loss of his situation of £900 a year, as Inspector of Lunatic Asylums, an office which Dr. White felt himself obliged to resign from inability to discharge its duties. Damages were laid at £6000. The defendants traversed, that the injury arose from the fault of their servants, and also traversed the special damage. Dr. Robert Adams and Dr. White's colleague, Dr. Nugent, were examined on behalf of Dr. White; and Mr. Page, a notary-public, was produced to prove what sum would purchase, at the plaintiff's time of life, an annuity of £600 a year, the difference between his retiring allowance and the amount of his full salary. For the defence it was argued, that while the jury ought to award fair and moderate compensation, they ought not to do more; the Company had already paid £380 expenses connected with the accident, and it could not reasonably be expected that a gentleman verging on 72 should long be able to discharge the active duties of an arduous office. The Chief Justice, in charging the jury, stated that they would award such fair and just compensation as they thought the plaintiff entitled to—

first, for the pain and suffering he had endured, and the injury resulting to his health; and next, for the special damage resulting from his inability to continue holding the office he occupied until the period of the accident. They were not, however, to adopt any notarial test of the difference between the retiring and the full salary, for such calculations were based upon the nett value of money, and not upon the value of an office, the duties of which were laborious, and required a certain degree of physical power and exertion to discharge. The jury having retired for some time, found a verdict for the plaintiff, with £2500 damages, and 6d. costs.

The second reading of the Scottish Lunacy Bill is fixed for Monday next, and it is to be committed on the following Thursday. It requires considerable modification. The Board is proposed to have but one Medical Commissioner. This is clearly not enough for the work, and there is not sufficient provision for extra Medical inspection. Putting aside the duty of inspecting asylums, the lunatics boarded by private families all over Scotland, especially in the wide-spread Highland regions, are very numerous; and to visit them, and at the same time attend to other pressing duties, is beyond the time and the physical powers of any one man; while if the proposed one Inspector is to sit in his office in Edinburgh, and receive reports from subordinate County Inspectors, he will be totally useless. The provisions for the care and treatment of the lunatics also require amendment.

Thénard, the celebrated chemist, has just died, at the advanced age of eighty. He maintained his ardent love for science to the last, and will be especially missed by young aspirants for scientific honours, whom he especially delighted to encourage. He has died universally regretted; and the Académie des Sciences, on hearing of his death, which took place the evening before their weekly meeting, at once adjourned, as is its excellent custom whenever it loses one of its celebrated members. One of the last acts of M. Thénard's admirable career was the foundation of a new Benevolent Society for scientific persons, or, as he styled them, the friends of science. He was formerly a Peer of France and Chancellor of the University, as also a member of the Institute, and a Grand Officer of the Legion of Honour. France knows how to honour her sons of science.

The answer given last week in the House of Commons by the President of the Poor-law Board to a question by Sir John Trollope, quoted in another part of our Journal, is discouraging to the Poor-law Medical Officers, as it holds out to them very little prospect of a redress of their grievances. The statement that the causes of complaint have been removed by making the office of Union Surgeon a permanent one is not altogether in accordance with the facts, as we took occasion to observe last week, for the order is prospective, and does not affect the present Medical Officers who are most aggrieved. Even in the case of those hereafter to be appointed, the boon is clogged with the condition of residence within the district, a restriction which will disqualify a great number of gentlemen for holding Union appointments. Mr. Griffin, however, is in no way disheartened by the apparently gloomy state of the Poor-law Medical Reform question. He urges his Medical brethren to continue sending in their petitions to the House of Commons, and making interest with the members in favour of the cause; and he states that considerable progress has already been made, as is testified by the promises of support which many Union Surgeons have received from their representatives. About 300 petitions have already been presented, many of them containing the names of men of high standing. We are happy to learn that Mr. Griffin has received a communication from Lord Elcho, promising his lordship's support to the Poor-law Medical Reform cause. His letter concludes with the following words:—"I am unable to take any steps in the present session as regards the grievances of the Poor-law Medical Officers, but I shall be very glad, if you have no more worthy advocate, to turn my attention to the subject next session."

In the last Annual Report of the National Vaccine Board a suggestion is made, which is well worthy of attention, in reference to the instruction of pupils in the due performance of vaccination. The Board considers that it would be "advisable that all the Metropolitan Hospitals should institute the plan of having one of their House-surgeons specially appointed to the duty of vaccination." It is well known that no provision at present exists for insuring the efficiency of vaccination, although this operation is now performed in every part of the empire; hence the security against subsequent attacks of small-pox is less than it might be under a better system. A Medical Student, unless he happen to have served an apprenticeship to a Union Surgeon, has very little, if any, opportunity of witnessing the practical details of the operation, or of watching the progress of the vaccine disease; and hence it may happen that a duly qualified Medical man may be appointed vaccinator to a district, although he has never performed vaccination. Every one who has witnessed the effect of this operation on a large scale in diminishing the mortality from small-pox must, in the course of his experience, have observed that several precautions are necessary for insuring effectual protection to the patient, and at the same time for obviating present inconveniences, and therefore we hope that the recommendation of the Vaccine Board will receive due attention. It is true that the insertion of vaccine lymph into the human body is a trifling proceeding, as vaccinia itself is a trifling disease; but when the importance of the consequences of inefficient vaccination are taken into account, and the prejudices any case of failure is likely to create in the minds of the community are duly weighed, too much care cannot be taken that our pupils should be adequately instructed in the art before they present themselves for the office of vaccinators.

PROGRESS OF MEDICAL SCIENCE.

Selections from Foreign Journals.

ON THE INDICATIONS FOR PUNCTURING THE MEMBRANES.

By Professor v. RITGEN.

1. *Puncturing the membranes during delivery.*—The object of puncturing the membranes is to obtain a gradual discharge of the liquor amnii, with the intention of obviating some disadvantages that would accrue from leaving them to their natural rupture, or of fulfilling some obstetrical indication. The operation may, therefore, be either prophylactic or therapeutical.

(1.) *Prophylactic puncture of the membranes.*—As a general rule, when the cervix uteri is not occupied by the thicker portions of the child, the water becomes suddenly and completely discharged. The exceptions to this are rare, and cannot be foreseen. This may be often attended with ill consequences. Thus, (a.) *prolapsus of the funis* may be brought about by the sudden rush of the waters. When the funis is felt presenting within the tense bladder of water, this is often burst during attempts at re-position, if the precaution has not been taken to discharge a portion of the waters by a more distant puncture. (b.) *Admission of air within the uterus.*—Upon the rapid and complete discharge of the fluid, a sufficient vacuum may be produced to admit the external air to the

uterus. This may give rise to great irritation, or even inflame mation, of its interior, or may stimulate the child to premature inspiratory efforts. (c.) *The removal of the pressure exerted by the liquor amnii upon the inner wall of the uterus* may be injurious in various ways. First, there is the dynamic effect exerted upon the uterus by the removal of the stimulus, the immediate result of which must be to enfeeble, or even relax and paralyse the organ, the capillary vessels being unable to resist the impulse of the blood, and hæmorrhage ensuing. The opposite condition of increased irritability often soon succeeds to this. Next is the mechanical effect, one of the consequences of which is a diminution of the pressure upon the placenta, and the diminution of its resistance to the vascular impulse, whence also hæmorrhage may arise. These consequences are the more likely to occur the larger the quantity of the water, and the greater consequent distension of the uterus, as in twins, etc. Too early a separation of the placenta with hæmorrhage, is not of infrequent occurrence in cross-births. Another frequent ill effect of the discharge is the loss of the ovoid form of the uterus, and the consequent disturbance of the progress of labour that takes place. The wall of the uterus is brought into immediate contact with the child's body, and irritation, cramp, or inflammation, may result. Gradually, too, by close application of the walls of the uterus the parts of the child become so surrounded that the progress of labour or the application of instruments is seriously interfered with; and but too frequently fatal pressure is exerted upon the child, funis, or placenta. All these ill consequences may in most cases be prevented by the timely puncture of the membranes. When the membranes are thin and the water abundant, and irregular action is present, the membranes easily burst; and in such cases a puncture for the gradual discharge of the waters should be practised as soon as the state of the os will permit. The author usually employs a silver wire, having a smooth rounded point, and terminating at the other end in a ring, for the convenience of holding it. When not in use it is kept in a catheter, and thus is always at hand.

(2.) *Therapeutical puncture of the membranes.*—The following circumstances furnish indications for this interference: (a) *Excessive distension of the uterus.*—When the uterus, containing a full-timed child, is unusually distended with liq. amnii, we should puncture as soon as the preliminary pains have sufficiently opened the os uteri. We have the above-mentioned inconveniences to obviate, and to secure a delivery free from the delays, interruptions, and other irregularities that may occur. When the distension is due to a plurality of children, when there is no reason for delay, the puncture should be made, in order to induce a gradual diminution of size, and a gradual expulsion of the child, the organ then gradually and gently adapting itself to the body of the second child; and if this last have not reached maturity, it may be retained yet longer in utero. Moreover, the occurrence of a cross position in the second child will in this way be frequently prevented; this being a consequence of the over-spaciousness of the uterus, and is often observed when the first child has been expelled by a few pains, before the capacity of the uterus become equably diminished. If the early puncture of the membranes be neglected, the premature separation of one or both placentas may take place, giving rise to hæmorrhage, and necessitating the delivery of the second child. (b) *Cross position of the child.*—After a disquisition upon the influence which the positions of the mother may exert upon the production or prevention of this, the author goes on to state, that the tendency which prevails at the commencement of labour for its conversion into a breech or cephalic presentation, is much interfered with by the too sudden discharge of the waters, while it is favoured by their more gradual discharge. Puncturing the membranes, and keeping the patient upon the same side as that on which the head is found to be, has, in his hands, in a very great number of cases, prevented the necessity of turning at a later period of the case. (c) *General debility of the uterus.*—For the relief of a moderate degree of this, which is usually due to over distension, there is no better means than the puncture, the organ recovering its contractility under the gradual discharge of the waters. There is, however, met with in old worn-out pluriparæ a form of general debility of the uterus, attended with great relaxation, but unaccompanied with excess of liq. amnii. In these cases contraction should be obtained by means of spirituous embrocations, the administration of quinine and cubebs and the like, reserving the employment of the puncture, together with that of ergot, according to the indications which may be present at a later stage. (d) *Footling cases.*—The author has found these cases terminating either very rapidly or very slowly. In the first case the pains were powerful and rapid, and the soft parts yielding, the child being born in two or three pains after the sudden rupture of the membranes. In the other case, many hours may pass before the pains become powerful and the soft parts pliable, and the long sausage-formed membranes are long before they break. Here puncturing is indicated, so that the water may flow gradually away without the child being excited, as is often the case in foot presentations, to premature attempts at breathing. (e) *Partial debility of the uterus.*—This is especially observed as a relaxation of the lower and anterior portion of the uterus, which the adjacent abdominal parietes participating in, gives rise to the pendulous belly in advanced pregnancy. During labour the unrelaxed portions of the uterus thrust the child towards the relaxed portion, which has, during pregnancy, assumed more or less of the ampullar form. This, becoming enlarged during labour, the parts of the child are thrust in it above or in front of the pubis; and if the sac attains both great depth and breadth, the child may even assume a cross position within it. If it is very deep without being broad, the head usually sinks into it, while the shoulder or the arm may pass into the os uteri. Too much liquor amnii, too large a child, or the two together, may increase it. The indication here is to restore the contractility of the weakened uterine parietes, as without this the labour will not proceed of itself. This is not to be done by the position of the patient, or by the application of pressure, which only adds to the mischief by inducing fatigue. Still less must we attempt the drawing forwards of the highly-placed os uteri by means of the finger, this only exciting the parts to partial excessive action. The application of the forceps is also here not only difficult, but improper. The worst of all is, however, when some urgency renders it necessary to finish the labour by turning. The os uteri opposes great difficulty to the entrance of the hand and the passage of the child, while the relaxed portion of the uterus exerts no expulsive power upon the portion of the child yet unborn. The finding and bringing down the feet, and turning the child, are also often very difficult. All these ill consequences are, for the most part, to be obviated by strengthening the relaxed portion of the uterus. The employment of bandages, stimulating embrocations, and general strengthening remedies must be commenced with during pregnancy, and continued during labour; and the puncture of the membranes should be resorted to as soon as the state of the os uteri will admit of it, very small doses of ergot also being given. Several days may, however, elapse before the restoration of the tone is effected. The patient should lie on one or the other side, the projecting portion being supported against the end of a round cushion. Sleep should be procured, and a nutritious, but not stimulating diet employed. The insensibility of the relaxed portion is gradually replaced by pains which may become severe, and the ampulla becomes smaller and tenser. The ergot is now discontinued, and may have to be replaced even by anodynes, while the stimulating applications are exchanged for emollient ones. Tepid injections of decoction of cicuta, milk or oil should be thrown into the vagina; and in a contracted, hard or sensitive state of the vagina and os uteri, frictions, either of mercurial ointment alone or with extract of belladonna, should be employed. The above course of treatment Dr. Ritgen recommends as the result of a long-continued successful experience. If called to the case only after the membranes have largely ruptured, he recommends still the same course of procedure, making no attempt for the artificial extraction of the child, unless inflammatory action seems imminent. (f.) *Uterine cramps.*—If spasmodic pains set in early, and threaten a premature rupture of the membranes, it is best to anticipate this by the puncture, in order to prevent a larger rupture and a rapid discharge. (g.) *Delayed expulsion of moles, with profuse hæmorrhage.*—The puncture of the mole is an efficient means of shortening the expulsion and arresting the hæmorrhage. In order to discharge the cavities of the mole repeated punctures may have to be made in various parts. Ergot and the plug may also be required; and when the hæmorrhage is very profuse ice-cold water should be thrown far into the uterus. (h.) *Premature separation of the placenta, and hæmorrhage.*—Forcible delivery should be only had recourse to in

cases of the extremest necessity ; cold injections thrown high up between the membranes and the uterus, puncture, plugging, and the ergot being otherwise preferable. (i.) *Placenta prævia.*—The arrest of the hæmorrhage by means of the gradual discharge of the waters, has been long recommended in this case. (k.) To the objection that a small puncture is of no avail in very *thick membranes*, the author replies that the punctures may be multiplied, or a thicker instrument may be employed. Too thick membranes may require for their spontaneous rupture such exertion from the uterus that may lead to its debility or its irritation, or may induce a separation of the placenta and hæmorrhage. (l.) *Cæsarean section.*—Prior to the performance of this operation it is of importance that the pains and consequent contractility of the uterus should be excited, so that the wound of the abdomen may be made as small as possible, and the uterus contract as soon as possible after the operation. If no urgency prevails, the gradual discharge of the waters by the puncture will best effect these objects.

2. *Artificial Premature Labour.*—Experience has shown our author that, as a general rule, the best means of inducing premature labour is the injection of almost hot water between the ovum and walls of the uterus ; but where it is necessary to reduce as speedily as possible the circumference of the uterus, as where the mother is threatened with asphyxia, and when hæmorrhage prevails, there is no means comparable to puncture.

3. *Rupturing the Membranes.*—The increase of the number of indications for puncturing the membranes lessens that of the cases in which their bursting is preferable. They must, however be widely burst, (a.) When it is necessary to employ instruments, or to introduce the hand ; (b.) When the child's respiration is impeded by being enveloped in them ; (c.) When, in the more or less complete absence of liquor amnii, the membranes do not break, but are closely applied to the presenting head, they should be ruptured as soon as the os uteri is wide enough. In this way rupture and separation of the placenta and tedious delay of labour may be prevented. (d.) The narrow opening made by puncture may cause delay at a later stage of the labour, and should then be enlarged. (e.) When the presenting part prevents the ready passage of the liquor amnii from behind it, and there is a tough projecting bag of membranes, the hastening of the labour, and preventing injury to the placenta should be effected by a large rupture, the puncture being too slow in its operation. (f.) For the delay of a too precipitate labour, it is sometimes useful to lay the patient on her side with raised buttock, to widely rupture the membranes, and to press the head somewhat backwards, so as to let as much water flow away as possible, and allow of the close application of the womb to the parts of the child. —*Monatsch. für Gebürtsk*, Band 8, pp. 237—260.

FOREIGN CORRESPONDENCE.

FRANCE.

[From our Paris Correspondent.]

PARIS, 28th June, 1857.

I have promised to the readers of the *Medical Times and Gazette* an account of the Medical Schools and Colleges in France. I will begin to-day to give some explanation upon that subject.

Medical and Surgical instruction in France is under the superintendence of the Ministry of Public Instruction, whose power upon every degree and every sort of public education is complete. The action of the Ministry is delegated to the Rectors of Academies in the different towns and in Paris. Medicine and Surgery, both in theory and practice, are taught in the same Colleges. These Colleges, or rather Schools, are of two kinds, the Faculties and the Preparatory Schools. The Faculties give the degree of M.D., and a very complete course of lectures upon almost every branch of Medical knowledge. The Preparatory Schools teach to the students the first principles of the practice and theory of our art, and give only the degree of Officers of Health (*Officiers de Santé*) to such persons as choose to take that inferior qualification.

There are only three Faculties—one in Paris, one at Montpellier, one at Strasbourg. The Secondary Schools are those of Marseilles, Besançon, Bordeaux, Caen, Rouen, Clermont, Dijon, Douai, Arras, Lille, Grenoble, Lyon, Nancy, Rheims, Poitiers, Limoges, Tours, Rennes, Nantes, Angers, Toulouse. One may see that the lecturing Medical Colleges are sufficiently numerous in this country.

In every Preparatory School there is a course of lectures upon Anatomy and Physiology, upon Surgical Pathology and Operations, upon Clinical Surgery, upon Medical Pathology, Clinical Medicine, Obstetric Diseases of Women and Children, Materia Medica and Therapeutics, Pharmacy, Toxicology, and Forensic Medicine. In the Faculties the lectures are more complete and less elementary. Anatomy and Physiology require each a particular study, and a lecturer is appointed to each of these sciences. Besides, there is a Professor of Hygiene, and of Medical Natural History. The Faculty of Paris has lecturers of Pathological Anatomy, of General Pathology and Therapeutics, of Medical Natural Philosophy, of Obstetrical Clinic, and of Pharmacology. Moreover, on account of the large number of students of that School, there are eight professors of Medical and Surgical Clinic, and four Professors of Medical and Surgical Pathology.

Since the beginning of this century, the distinctions between Surgeons and Physicians being out of fashion and abolished almost completely by the graduating regulations, the degree of M.D. has become the general and common title of the first Practitioners of this country. In the second rank are the *Officiers de Santé*, who receive only an incomplete theoretical education. The *Officiers de Santé* are still numerous in country places, and in the small towns ; their position is almost the same as was that of the General Practitioners in London twenty years ago. The Apothecaries (*Pharmaciens*) are a Corporation entirely distinct here from the Medical and Surgical bodies. They are submitted to examinations, practical and theoretical ; they have three lecturing bodies, a sort of Colleges, in Paris, Montpellier and Strasbourg. In these superior Schools of Pharmacy there are lectures upon Chemistry, Botany, Toxicology, Pharmacy, Natural History, Natural Philosophy, and Zoology. In the School of Pharmacy of Paris we find among the Professors, MM. Bussy, Chatin, Caventon, Lecanu, Guibourt, Valenciennes, whose names and works are known in the scientific world.

In another letter I will give you an account of the most interesting regulations of the French Medical Schools, of the examination of students, and of the cost of Medical instruction, as it is directed in this country.

I have heard that a commission has been appointed by the War Office in London to come to Paris to study the plan of a School of Military Medicine and Surgery. It has been reported here that Drs. Sutherland and Alexander were at the head of that Board.

Several of our Medical periodical papers have reported last week, that some members of the Academy of Medicine have the design of altering the regulations of that scientific body, of reducing the number of the academicians from a hundred to sixty. They have added to that account that the Academy thus lessened might become one of the sections of the Institute of France. That change is, according to several newspapers, the aim of several Physicians ambitious of honours and academical embroidered coats. The greater number of the academicians are quite opposed to such an anti-liberal scheme, which would shut the doors of the Academy to a great number of young, clever, and active Physicians.

Dr. Beau read, in the last meeting of the Academy, a good report on two cases of contagion of yellow fever in the harbour of Brest. Two workmen were infected on board a man-of-war whose crew had suffered from the disease. Dr. Beau has proved that these two men truly died of yellow fever. These are not the only cases ; the annals of nautical medicine in England, as in France, record several examples of a similar nature. It would be extremely interesting and valuable to give the complete account of these events, as their history forms a more secure guide to the practical hygienist than all the discussions about contagion and infection.

Some days ago, Dr. Leconte, one of the most learned lecturers of the faculty upon chemistry, read to the Academy of Medicine an account of his researches upon the urine of women who suckle. In the beginning of this year Dr. Blot stated that he had found in the urine of lying in women, almost in every case, a small quantity of sugar. It is now almost completely proved that such a report is erroneous. Leconte has made his analyses with the utmost care, and has

arrived at facts quite opposite to the supposed diabetic reactions of the urine of lying-in women. The cause of the error of the first observers lies in an incomplete knowledge of the chemical reactions of urine, and in a too hasty generalization.

Last Saturday C. Bernard related to the Society of Biology the results of some new experiments upon the glycogenic matter of the liver. He has found upon a great number of animals, that during the stage of the different pyrexia to which they are exposed, or which can be artificially produced by a wound, the liver does not give any test of the presence of sugar. He thought at first that the absence of glycogenic matter was the result of abstinence. Horses eat as usual in the febrile state. The learned physiologist having ascertained that the liver of these animals does not give in similar cases any probable evidence of the presence of sugar, concluded that pyrexia by itself would stop the process of formation of the hepatic saccharine matter. The fact proved true after several trials. In this way Bernard had found an excellent test to note the difference which exists between the hepatic glycogenic matter, and the starch which has been found lately by Colin in the lymphatic ducts and in the muscles of horses and oxen fed upon fodder. The skilful observer has thus ascertained that the hepatic glycogenic matter has no relation with the starch found in several parts of the organism in animals whose liver does not give any test of the presence of sugar. These experiments of Dr. Bernard explain the facts quoted some time ago, in opposition to the theory of our celebrated contemporary, as to the glycogenic action of the liver.

A Physician of Passy read last Tuesday, before the Academy of Medicine, researches upon a new system of auscultation, called Dynamoscopy. The author asserts, that in the state of illness the buzzings or tinklings which are heard when the finger of a patient is put in the external ducts of the ear are changed, according to the acute or chronic nature of the case. He recommends the same auscultation as the best sign of death. I cannot decide on the value of such a plan, which may be totally erroneous, if the inventor is not a good observer. I hope that the Commission of the Academy will soon give positive data upon these curious phenomena of buzzings, which were ascribed by Wollaston to muscular contraction.

The celebrated Baron Thénard, one of the first members of the Institute of France, of the Board of Public Instruction, a most learned, honest, and good-hearted man, died last week. Two days before his death he was in full health, and wrote several letters relative to a donation he had made for indigent learned men. Thénard had lately lost his wife, and his son, a clever young man. He leaves to his only child a large property, and a name universally beloved and respected. Dumas, who was twenty years ago the pupil of Thénard, pronounced upon his tomb a speech full of grief and affection, by which all the assembly was deeply moved. Thénard had been from 1820 to 1830 a renowned lecturer in Chemistry. He was the friend of Gay-Lussac, and the teacher of most of our renowned chemists.

There are no news at the Faculty of Medicine; that corporation is now busy with the examinations of the great number of students who take their degrees at the end of each year. The lectures are regularly delivered at the *Ecole*, or in the Hospitals, till the beginning of August; and the course of Medical instruction remains every year unchanged. The only event that merits notice is, the complementary course of lectures upon Forensic Medicine, which Dr. Tardieu has been appointed to deliver. That appointment is a strange thing at the Faculty, where Adelon is the regular lecturer upon Forensic Medicine. One may say that Adelon is not much listened to by the students; but several other Professors of the Faculty have not more than ten or twelve faithful auditors. I think that the lectures of M. Tardieu have been instituted for himself rather than for the students, who will, however, listen with interest to that eloquent and clever teacher.

The Weekly Return of the Board of Health.—The total expense of printing the weekly return of "the Health of the Metropolis," amounts to £11 13s. 8d. for paper and printing. The only other expense hitherto incurred has been for postage, which will be charged on some 230 copies circulated weekly. This information was required by the House of Commons, on the motion of Mr. T. Duncombe, M.P.

PROVINCIAL CORRESPONDENCE.

IRELAND.

[From our Dublin Correspondent.]

Dublin, June 30, 1857.

An investigation is at present pending at the Capel-street police office in this city, which may dispel the mystery in which the awful murder, perpetrated in November last in the terminus of the Midland Great Western Railway, and brought under the notice of your readers in your publication of the 29th of that month, has hitherto been enveloped; one beneficial result, at all events, has already followed from the circumstances brought to light within the last few days,—the feeling of suspicion so long attached to some respectable parties connected with the railway has been completely dissipated. The investigation alluded to has been undertaken, in consequence of the voluntary statement of the wife of a painter, named James Spollen, residing in a cottage adjoining the tank from which water is supplied to the locomotives at the terminus of the railway, who, actuated it is said by the combined effects of fear for her own safety and of the pangs of conscience, charged her husband with the commission of the murder, asserting that he himself had told her all about it, and that she had assisted him in concealing the stolen property. Although, by the law of the land, the evidence of a wife against her husband cannot be received in any criminal proceeding, the statements made by this woman have led to the obtaining a chain of circumstantial evidence which may be most important. Thus, in a most out-of-the-way locality, indicated by her, a little tub, such as is used by painters in the carriage department of the railway, and apparently full of red lead, was discovered, and when broken open was found to contain, between layers of red lead, of about 28lbs. respectively, bags with no less than £67 5s. in silver, and so rotten, that on being lifted out they burst open, and literally dropped to pieces. Close adjoining was found, under a heap of stones, a bundle, containing in copper, sovereigns, half sovereigns, and bank-notes, a sum of £132 0s. 8½d., and the piece of calico in which this money was wrapped has been identified by Spollen's daughter, a little girl of between 10 and 11 years of age.

The foregoing may enable your readers to form some idea of the nature of the evidence brought forward. I hope to be able to send you next week the result of the preliminary investigation, which is to be continued to-morrow, paying especial attention to any point of medico-legal interest which may arise, such as the examination of clothes handed over by Mrs. Spollen to the police for blood-stains, stated by her to have been disguised by the accused with a covering of red paint. Full details of the ordinary evidence would not, of course, be suited to your Journal.

The Lord-Lieutenant has appointed George W. Hatchell, Esq., M.D., to the important and lucrative office of Joint Inspector-General of Lunatic Asylums in Ireland, vacant by the resignation of Dr. White, who, it will be recollected, was so severely injured on the occasion of the dreadful accident on the Waterford and Kilkenny Railway in November last. Dr. Hatchell has held the situation of Surgeon to the Lord-Lieutenant's household for the last twenty years, and has during that long period enjoyed the respect and esteem of all with whom he came officially in contact. His present appointment is felt by all to be a graceful recognition on the part of His Excellency of his long and faithful services. The salary of the Inspector-General is £900 a year, exclusive of travelling expenses. Besides the Surgeoncy to the Household, the office of Surgeon to the Constabulary Force of Ireland, with a salary of, I believe, £300 per annum, and an official residence in the Phœnix-park, becomes vacant by Dr. Hatchell's well-merited promotion.

It is satisfactory to observe the steady progress which attention to important branches of education, hitherto too much neglected in this country, is now making. The Royal Dublin Society have announced their intention of holding, in the month of October next, examinations for certificates of merit, which it is thought will be useful to those seeking situations in banks, from public companies, in commercial and manufacturing establishments, and from private employers in general. The subjects will be—writing and composition, arithmetic,

mensuration, geometry, algebra, and plane trigonometry, English history, and geography. Prizes will be awarded for marked proficiency.

The death, within the last few days, of a woman named Howes, at Upton, near Bandon, in the county of Cork, will, it is to be feared, furnish another instance of the danger arising to the public from the careless manner in which poisons are kept, or from the ease with which they can be procured for criminal purposes. It appears that the deceased was mother to a person who held a position in the Bandon workhouse, in which she had facilities of obtaining access to the drugs kept in the establishment. The deceased had been for some time previous to her death subject to attacks of perspiration, for which the daughter recommended her to take some gallic acid. The daughter states that she procured a pill-box of gallic acid, which she laid aside, intending to give it to her mother on the first opportunity. When she afterwards came to look for the box she could not find it; but some time subsequently she found a box, which, from its appearance, she supposed to be the same. She gave it to her mother, who, it appears, took a portion of its contents, and died in about two hours after, with all the symptoms of poisoning by strychnia. It does not appear that the daughter had any interest in her mother's death, and the opinion of many persons is that the occurrence arose from mistake. The inquest has been adjourned for the present, awaiting the result of a chemical analysis by Professor Blyth, of Queen's College. A very small portion of the contents of the pill-box having been administered to a cat, immediately caused the death of the animal.

GENERAL CORRESPONDENCE.

STATISTICAL INQUIRY INTO THE EFFECTS OF CHLOROFORM ON CERTAIN OPERATIONS.

[To the Editor of the Medical Times and Gazette.]

Sir,—The courtesy by which I have been enabled to reply to the several writers who have opposed my views on the subject of chloroform will, I trust, be extended, and that I shall be permitted to make a few comments on the elaborate paper of Dr. Fenwick, which was concluded in your last number.

The Profession are obliged to Dr. Fenwick for the pains which he has taken to direct their attention to a very important question; and, as I have no doubt I shall show satisfactorily that this writer, instead of establishing his point, has only brought fresh evidence in favour of the point he controverts, he will have impressed the truth more forcibly by the manner in which this evidence has been adduced, than if he had simply sent his return from the Newcastle Infirmary, as an addition to the twenty-nine returns from other hospitals which I had already published, and for the purpose of proving with them the momentous fact, that a great increase of mortality, after certain severe operations, has followed the introduction of chloroform.

In endeavouring to outweigh the results of all the other statistical reports furnished by the whole of the London and many of the Provincial Hospitals, and drawn up by men perfectly unbiassed on the question, by a return from one Provincial Hospital, drawn up by himself, Dr. Fenwick has undertaken a difficult task; and his boldness is rendered more conspicuous by the fact, that the return from the Newcastle Infirmary actually shows an increase of the average mortality both from amputation and lithotomy since the introduction of chloroform. It would almost appear that he had sought an opportunity of illustrating the truth of a common objection made to this mode of investigation in Parliament and elsewhere, namely, that anything—even that black is white—may be plausibly proved by statistics.

It is, no doubt, true that statistics, abused or misapplied, will for a moment furnish such a semblance of truth; but, if properly used in appropriate cases, there is no kind of evidence that is so satisfactory. The art of statistics is the determination of certain points by the comparison of large numbers of similar facts. If small numbers are employed, it is a misnomer to call this use of them statistics, and we should be led by such a practice to the greatest absurdities. In tossing a halfpenny, it might happen that in the first five throws the head would be uppermost four times; but should we call it reasoning by statistics to conclude, from such an accident, that in tossing the coin any number of times the head would always be uppermost in the same proportion?

Dr. Fenwick has fallen into this mistake. He is not content that the general averages of the Newcastle return should be added to the general averages of the other Hospital returns, but he insists upon analysing it. Finding, for instance, that out of 8 cases of what he terms traumatic amputation of the thigh in the Newcastle Infirmary, 5 proved fatal without chloroform; and out of 11 subsequent cases, 5 proved fatal with it, he at once proclaims that 17 in 100 of such amputations have been saved by chloroform! I question if, in the whole range of statistical reasoning, a hastier or worse-founded inference could be found; and yet a dozen such are contained in his paper. To justify such an inference, instead of 11 cases, 1100 should have been adduced. We find in the first column of his first table that the mortality of what he terms pathological amputation of the thigh, during seventeen years before chloroform, was 18 per cent., and that of the forearm 33 per cent. (the number of cases being respectively 50 and 9); are we, by the same rule, to conclude that amputation of the forearm is nearly twice as dangerous as amputation of the thigh? But where was the necessity of bringing the Newcastle Infirmary to prove what, if this rule be good, was already so clearly proved by the Southern Liverpool Hospital? In one of my tables (*Medical Times and Gazette*, April 25) it appears that in the pre-chloroform period, out of 4 amputation cases occurring in that Hospital, 2 proved fatal; whereas in the post-chloroform period only 1 patient in 5 cases perished. Again, as in another of my tables (October 25), we find that of 5 amputations at the Seaman's Hospital performed under chloroform, the whole number proved successful, why may we not conclude, by the same rule, that its exhibition is a certain preventive of death after amputation? Which is the more rational plan, to draw inferences from a few units contained in the report of a single Hospital, or from the collected hundreds of various Hospitals? The latter inform us that an increase of mortality after amputation of more than 10 per cent. has followed the introduction of chloroform, and more than 20 per cent. after lithotomy on the adult.

As this great fallacy pervades the whole of Dr. Fenwick's paper, it is almost unnecessary, in respect to the conclusions he arrives at, to advert to other objectionable reasonings; but, as the pointing these out may prevent mistakes in the continuation of this discussion, I shall do so as briefly as possible, and in the order in which they occur to my memory.

In the first place, in bringing the average mortality after amputations to 24 per cent. both before and after the introduction of chloroform, he has not only departed from the usual practice in such calculations, but has done that which he has himself condemned—he has included amputations of the thigh and forearm in the same table. When those of the forearm are excluded, there is an increase of mortality after chloroform of 2 per cent.

Secondly, Dr. Fenwick states that there would have been a greater increase of mortality after chloroform in the Newcastle Infirmary, but for certain Surgical improvements. That it would have been much greater but for the enlargement and improvement of the Hospital is unquestionable; for the mortality was above the usual average of Hospitals before this alteration. It is extraordinary that Dr. Fenwick should not have adverted to this circumstance, for it is so important as to prevent the possibility of making any fair comparison between the mortality of the two periods. I find, by the "Medical Register," that since 1850 the Newcastle Infirmary has been enlarged to one-half more than its size at that time. Were the Paris Hospitals to be so enlarged and improved, who can doubt that their present excessive mortality after amputations, arising from the impurity of the air, would be reduced one-half?

Thirdly, Dr. Fenwick is of opinion that amputations performed for injuries are always more fatal than those performed for chronic diseases. They are generally so, but not always; the comparative mortality depends upon the judgment and skill of the operator. Some military Surgeons inform us that only 1 in 12 of their primary operations in the field proved fatal. If a man in perfect health has his arm amputated for a slight injury, there is no great chance of the opera-

tion proving fatal; and the immense disproportion of the traumatic amputations in the two periods in Dr. Fenwick's table would lead us to suppose that a change had occurred in the system of Surgery at the Newcastle Infirmary.

Fourthly, in his observations on lithotomy he makes little distinction between lithotomy in children and adults. He admits a great increase of mortality after the latter, which he attempts to account for by the supposition that the best cases have been reserved for lithotrity. This argument has been adduced by another party, and amply refuted. I have elsewhere stated that in the year preceding the publication of my paper on the ulterior effects of chloroform, there was only one case of lithotrity in all the London Hospitals, and that this operation was chosen only because the patient was otherwise in too diseased a state to render lithotomy advisable.

That chloroform could exert any influence in preventing extravasation of urine, as Dr. Fenwick appears to think, is inconceivable; this occurrence principally depends on whether the surgeon trusts most to cutting or dilatation in opening the neck of the bladder.

Fifthly, he brings forward in the last division of his paper several tables of the minor operations in surgery. In my original paper the following passage occurs:—"I may observe with respect to the use of chloroform in herniotomy, that from the smallness of the wound it probably causes little increase of danger. In most minor operations, indeed, the principal danger to be apprehended from its use is that of sudden death from its primary effects." The danger from chloroform is nearly in direct proportion to the danger of the wound. A man may have his finger amputated while in a state of intoxication, without any appreciable increase of danger; if the amputation were that of the thigh, the circumstances would be very different. Dr. Fenwick prohibits chloroform in herniotomy, partly because the very limited return of the Newcastle Infirmary shows an increase of mortality from this operation since chloroform was in use, and partly from a theory founded on its depressing effects, which would be equally condemnatory of its use in other operations. A better reason for its prohibition is the chance of sudden death; and because the pain produced by the operation can be safely prevented by local anæsthesia.

Sixthly, Dr. Fenwick appears particularly anxious to refute the opinion, that chloroform acts injuriously, by predisposing to pyæmia. I do not consider this a point of much importance, nor have I declared any very decided opinion respecting it, excepting that etherisation acts injuriously, as hæmorrhage acts, by inducing debility. Nothing, however, has been hitherto adduced to show that pyæmia is not one of the consequences of this debility.

To conclude; I consider that the returns published by Dr. Fenwick afford valuable additional evidence of the opinion I have advocated respecting chloroform. We find, indeed, that the increase of mortality from it at the Newcastle Infirmary is less than at most of the other Hospitals, but this is easily accounted for by the great enlargement of the Infirmary, and the previous high mortality. The examination of his paper has disclosed certain fallacies to be avoided in this discussion, and particularly that of drawing important inferences from a very few cases. It is difficult, indeed, to say what amount of statistical evidence ought to be deemed sufficient to determine the question under consideration. Every such problem in medicine requires, it may be said, an amount appropriate to itself. If the doctrine sought to be established is very plausible—if reasoning would clearly lead to it—a much smaller amount of experimental facts is requisite than under contrary circumstances. The probability that an agent so depressing and poisonous as chloroform manifestly is in many cases, would increase the mortality by its ulterior injurious effects, renders a greater amount of evidence than has been given in my tables unnecessary. The number of figures may appear smaller than is desirable (for, perhaps, the whole number of cases from which the general inference is drawn does not exceed a thousand,) but as all the returns are given by me without selection, and as these returns are furnished by unbiassed parties, and have other evidence of being perfectly authentic, they are in every way sufficient to determine the point, whether chloroform acts injuriously on the severer operations.

I am, &c.

London, June 27, 1857. James Arnott.

THE EDINBURGH LECTURERS ON MEDICAL REFORM.

[To the Editor of the Medical Times and Gazette.]

Sir,—In a letter in your columns this day, signed M.R.C.S.L., I observe some allusions to a recent "Statement by Medical Lecturers in Edinburgh," bearing on the question of Medical Reform. As it is of importance that the position of those who concur in that "Statement" should not be misunderstood, I venture to trouble you with the following explanations:—

1. The authors of the "Statement" do not, as your correspondent suggests, endorse Mr. Headlam's Bill, nor do they desire to be understood as interfering in the question of Medical reform, further than is implied in their opposition to Lord Elcho's measure—an opposition proceeding on the specific ground that the Lecturers view that measure as injurious to Medical education in Edinburgh, inasmuch as it extends the privileges, already too great, of University Professors as examiners, and thereby places those teachers who are not University Professors at a great and unjust disadvantage.

2. The authors of the "Statement" do not, as your correspondent assumes, confound the position of the extra-academical Lecturers in Edinburgh with that of Professors "agrégés," or even of "privat-docenten," abroad. They appeal to the experience of other countries, not to illustrate their own position, but to show that the Scottish Universities stand alone in committing the examining power to a body very limited in numbers, and very exclusive in character. It will not be denied that, in this respect, the state of the German and French Universities is widely different from the majority of those of Scotland. In the foreign Universities, a body of teachers, capable of being almost indefinitely extended in numbers, is comprised within the University, and exercises privileges under the direct control of the Government. In the other case, a compact staff of Lecturers, bound together by a common interest, and discouraging or ignoring, so far as they can, all teaching but their own, lay claim to the administration of academic honours as an indefeasible right, and would acquire also, if they could, the power of superseding, by their degree, the diplomas hitherto granted by the professional incorporations.

3. Let us see what the Lecturers object to in the present system. They pronounce it to be a wrong and an unjust thing, that the power of granting a national distinction should be placed in the hands, not merely of a small number of men, and these men teachers; but that it should be made the means of favouring one particular set of teachers, and of giving them a hold upon their classes quite independent of their merits as instructors. Such a privilege the Lecturers regard as nothing else than a most injurious monopoly, tending to destroy fair competition, and to protect the privileged Professor at the expense of the Lecturer, and therefore of Medical education in general. Such a monopoly they regard as especially injurious in Edinburgh, because in Edinburgh there has always been a complete and efficient Medical school outside the University—a school older than that of the University; a school, moreover, from which that of the University originally sprang, and has at all times been largely recruited; a school, therefore, to which Edinburgh has been indebted for the great majority of its Medical teachers, and no inconsiderable portion of its reputation. The fact that the Lecturers in this school are not incorporated, and neither have nor seek for any peculiar privilege, ought, one would think, to give them a claim on the sympathies of your correspondent, contending, as he does, against corporate exclusiveness.

4. Nevertheless, your correspondent seems disposed to deny to the Lecturers, in their struggle for "a fair field and no favour," even the barest justice. He seems, in fact, to regard them merely as a thorn in the side of the University; and he pooh-poohs their claim to the slightest consideration. They are "self-appointed," he says. Now, the fact is, that they are not self-appointed; but are approved, after examination, by the Colleges of Physicians and Surgeons; as legitimate a mode of appointment, surely, as need be desired for any practical purpose. True, they owe their success, after appointment, entirely to their own exertions; but are they to be set aside on account of that, which in reality ought to be the most powerful of all pleas in their favour? They are unprivileged persons, says your correspondent; therefore, he argues, they are nought. Further, he says, they are "in

direct opposition to the University." How so? Are the interests of the University, then, compromised by fair competition; and is it the function of a great national institution to put down all Medical teaching, save that of a dozen of Professors. Such was not the office of a University in days gone by, when doctors were really teachers, and the Universities were great and comprehensive schools of learning. I apprehend that instead of representing the Lecturers as being in opposition to the University, it would be a far more exact representation of the facts to describe the University as being placed most injuriously in opposition to the Lecturers, who have for many years had a hard struggle for bare existence, in consequence of the unjust privileges conceded to the Medical faculty. It is ridiculous to identify the interests of the University with those of so small a body as the Medical Professors; and surely the students, who are no inconsiderable part of a University, are none the worse for the existence of an extra-academical school. As to our "generally lecturing at the same hour as the Professors, with the avowed intention of drawing away his pupils," the charge, if it be such, is absurd. The simple fact is, that any other hour would lead to confusion; the rule being that the different hours of the day are allotted, not to the teachers, but to the subjects taught; and for any man to stray out of his beat, would disable students from attending some other class equally important with his own. Such charges, on the part of your correspondent, betray either great ignorance, or a desire to fix upon the Lecturers the stigma of capricious and obstructive conduct, which every one knows is the very opposite of the truth.

5. Let me now recapitulate the chief arguments of the Lecturers, as gathered from the preceding paragraphs, or from the "Statement" above referred to. They think it not more than just that a student coming from their class-rooms should be tried by perfectly fair and impartial tests, and that he should not be subjected to any disadvantage, as compared with his neighbour who has studied exclusively under the Professors. They contend that the students in general have a right to the most perfect security that can be devised against the partiality, which may lead a man even of honest intentions to prefer his own views to those of others, and, therefore, to prefer his own students, the followers of his doctrines, and the close adherents of his opinions, to those educated by another, and still more by a rival teacher. The Lecturers allege, without the least intention of offence, or of individual allusion, that this security is not given under the present system, so far as the degree of M.D. in Edinburgh is concerned. They further think that, under Lord Elcho's Bill, the evils of the present system would be greatly aggravated by the appointment of Professors in the Universities as examiners *ex officio* for the diploma of General Practitioner. And it is evident, too, that a similar aggravation of the evil would take place if the Universities should succeed in superseding the diploma of the Corporations, by a degree granted in the place of a licence. Accordingly, the opposition of the Medical Lecturers may be counted on, not only to Lord Elcho's Bill, but to every measure which has a tendency to extend the prerogative of the Universities, under their present close system of administration.

The "Statement" of the Lecturers does not propose any remedy for the evil which it discloses, and seems carefully to avoid making even a suggestion on the subject. I cannot, however, refrain from expressing a hope that the Universities may see the force of these considerations, and be induced to enter upon a new sort of "Medical reform." Hitherto, the influence of the Scottish Universities, and especially of their Medical Faculties, has been invariably exercised in the direction of monopoly and exclusiveness. In this respect your correspondent has not misinterpreted their habitual policy, when he intimates his belief that thay will do their best to keep out "opposition Lecturers," and to resist the control of professional opinion.

Let us hope that it is not yet too late for the senates of our Universities to reverse this policy. Let them cease to be jealous of "opposition Lecturers," and instead of opposing external interference in granting their degrees, let them seek to be as much as possible guided in the performance of their important Medical functions by the opinion of the Medical Profession. Let the Court of Examiners be constituted on impartial principles, and let the cooperation be formally sought and obtained of other public bodies, and especially of those which give the licence to practise. Such a course would disarm hostility, and smoothe the way to Medical reform. It would also add greatly to the means of Medical teaching, just as free trade in corn produced a beneficial revolution in agriculture. But by improving the quality of teaching, and engaging the sympathies of the entire Medical Profession in favour of the Scottish Universities, it would immensely strengthen these ancient seats of learning, and enable them to place their honours above the suspicion of maladministration, which at present attaches to even the best of them, in spite of all their efforts (and I believe, most honest and praiseworthy efforts,) to improve the character of their examinations. Such a "Medical reform" could hurt none but the incompetent. It would reconcile the interests of the Universities with those of the licensing bodies; and relieve us from the annual spectacle of a Parliamentary antagonism between opposing monopolies, in the midst of which the great interests of the Medical Profession are slighted and neglected.

I trust it is quite unnecessary for me to disclaim being induced by personal feeling to make these observations on the Medical Faculty of the University of Edinburgh. It is my happiness and good fortune to be on terms of friendship with the members of that Faculty, and in not one instance has their conduct towards me personally, or, so far as I know, towards any of my pupils, afforded the smallest ground for criticism. It is, therefore, the system which is the object of my remarks, not the men who at present administer it.

I am, &c.

W. T. Gairdner,
Lecturer on Practice of Physic, and on Clinical Medicine, Edinburgh.

Edinburgh, June 27, 1857.

TESTING FOR ANTIMONY AND ARSENIC.

[To the Editor of the Medical Times and Gazette.]

Sir,—Since the publication in your journal of the 20th instant of my paper "On Testing, for Antimony and Arsenic, Metallic Deposits obtained on Copper by Reinsch's Process," I have been favoured with a letter from Dr. Odling, intimating that when potash solution is not at hand, solution of permanganate of potash, *per se*, may, by a little management, be made available for both oxidizing and dissolving a deposit, the object of examination. As all information on the subject ought to be made public, it may be well for this to appear in an early number of the same journal in which my paper was published; and, having obtained Dr. Odling's permission, I beg to present you with the letter I have received, hoping that you will allow it to be inserted.

It must be understood, however, that I still consider it preferable in general, according to the instructions given in my paper, when caustic potash or soda solution can be readily obtained, to let atmospheric air be the oxidising agent. But, when the quantity of matter under examination will allow, and when both caustic alkali and permanganate can be obtained, there can be no harm in making several experiments; using the permanganate in some of them, and atmospheric air and solution of alkali, without the permanganate, in the others.

I am, &c.

Henry Hough Watson.

The Folds, Bolton-le-Moors, June 27, 1857.

Guy's Hospital, June 22nd.

Sir,—I have read your paper in the *Medical Times and Gazette*, "On Testing for Antimony and Arsenic," with great interest. I have repeated your experiments, and have obtained most excellent results. I find the modified rather more tedious than the original process, but otherwise unexceptionable. While your attention has been directed to an avoidance of the permanganate, I have been led to experiment in the opposite direction, and avoid the employment of potash. When copper foil, coated with antimony, is covered with water in a test-tube, and pure aqueous solution of permanganate of potash added, little by little, boiling to decolorise between each addition, the result is quite as satisfactory, though not quite so rapidly attained, as with my original process. In practice, however, I should not be inclined, save in particular cases, to dispense with the use of potash; inasmuch as the purity of an alkaline solution of the permanganate, or of a neutral solution of the same salt, or, indeed, of a solution of caustic potash itself, as used in your method,

is determined by exactly the same reaction. It seems to me that the solution of deposited antimony is effected most rapidly, and most completely, by the original process with both permanganate and alkali; but that when the two reagents cannot be obtained pure, either of them will answer the purpose. The crystallized permanganate of potash is a remarkably pure salt, but, on the other hand, potash is procurable everywhere. Your recognition of the sufficiency of simple potash solution as a solvent for metallic antimony is, in my opinion, an observation of great value. The principle of my process comprised an oxidation, and solution in fixed alkali, of the deposited antimony. I replaced the permanganate by hypochlorite, chromate, and other oxygenants, successfully, though not advantageously; but it did not occur to me to derive my oxygen from the atmosphere.

H. H. Watson, Esq. I am, &c. William Odling.

PARLIAMENTARY INTELLIGENCE.

HOUSE OF COMMONS.

PETITIONS.

Petitions in favour of Mr. Headlam's Medical Bill were presented by Mr. Headlam, from the Medical Practitioners in the county of Longford; from the county of Ayr; the city of Armagh; the counties of Armagh and Down; from Dukinfield; Ashton-under-Lyne; the county of Lanark; the county of Mayo; the county of Kildare; Beaumaris; Queen's County; from Practitioners in Medicine and Surgery of the city of Edinburgh; from King's County, and from various individuals; by Mr. G. Langton, from Medical Practitioners of North Curry, Somersetshire; by Mr. Hindley (5), from Medical Practitioners in Ashton and Mopley; by Mr. Goddard (2), from the Medical Officers of the Highworth and Swindon, and Cricklade, and Wootton Bassett Unions; Sir. J. C. Jervoise, from Medical Gentlemen and Officers of the Havant Union, praying the House may pass such measures as will ameliorate their condition; by Mr. Bovill, from Medical Practitioners of Sydenham and neighbourhood, in favour of Mr. Headlam's Bill; the Medical officers of St. Mary's Hospital and the Lecturers and Students of the Schools; also from the College of Surgeons, Ireland; the Andersonian Medical School of Glasgow; the Master and Society of Apothecaries, London; the Physicians and Surgeons of the city of Dublin Hospital; the Physicians and Surgeons in Castlebar, Ireland; the Practitioners in Montgomery, Welshpool, Llanbrynmair, Llandrinis, Llansantfraid; Shrewsbury, Market Drayton, Leintwardine, Clunbury, Longden, Newport, Wellington, Salop; Broseley, Madelus, and Newport, Monmouthshire; from the *Dublin Journal of Medical Science;* from Freshford, Somerset; from Moffatt, Dumfriesshire; from Bridge of Allan; from Kilmarnock; from Kensington, Middlesex; from Gildersome, near Leeds; from Greenock, Scotland; from Practitioners in the county of Inverness; from Bishop's Castle; from Trowbridge, Salop; from Prees, Salop; from the county of Waterford; from the county of Louth; from Clackmannan; from Lanark; from Practitioners in the county of Haddington; from Melrose, Roxburghshire; from the city of Dunfermline; from the town of Busby; from the town of Bath; from Govan, in the county of Lanark; from Renfrewshire; from Forfar, county of Forfar; from Jedburgh; from Kirkintilloch, Dumbartonshire; and from Practitioners of Medicine and Surgery in the city of Edinburgh.

Petitions in favour of the same measure were also presented by Mr. Fenwick, from Medical Practitioners of Sunderland; by Mr. T. Miller, from the Colchester Medical Society; by Mr. Townsend, from several Medical Practitioners of Deptford; by Mr. Rebow, from the Medical Society of Colchester.

Petitions were presented against compulsory vaccination by Mr. Coningham, from inhabitants of Brighton, London, and Bexhill; by General Codrington, from inhabitants of Greenwich; and by Mr. Briscoe, from Mr. Charles Mose, Dorking, and from the inhabitants of Dorking.

Petitions complaining of the remuneration to Medical Poor Law Officers were presented by Sir J. Trollope, from the President, Vice-Presidents, and Members of the Council of the Royal College of Surgeons of England; from the Master and Wardens of the Society of Apothecaries of London; also (twenty-eight petitions) from Medical Officers of various Poor Law Unions; by Mr. J. D. Harris, from the Medical Officers of the Barrow-upon-Soar Union, Leicester; by Mr. Willson, from the Medical Officers of the Bourne Union; two by Viscount Althorp, from the Medical Officers of the Towcester and Banbury Poor Law Unions; by Sir J. Paxton, from Medical Officers of the Coventry Union; by Mr. Moody, from Medical Officers of the Williton Union; by Mr. G. Langton, from the Medical Officers of the Langport Union; by Mr. Puller, from ratepayers of the borough of St. Alban's and from ratepayers of Walkem parish; by Sir M. Lopes, from the Medical Officers of the Westbury and Whorswelsdown Union; by Mr. Sclater, from the Medical Officers of the town of Alton; by Mr. Hanbury, from the Medical Officers of the Uxbridge Union; by Major S. Wortley, from the Medical Officers of the Axminster Union; by Mr. W. Clive, from the Medical Officers of the Atcham Union; and by Sir J. Potter, from the Medical Officers of the Manchester Union; by Mr. Crook, from 22 members of the Board of Guardians of the Bolton Union; by Mr. G. S. Beecroft, from the Medical Students of Leeds, praying for the removal of the grievances under which the Medical Officers of the Poor Law Unions labour; by Mr. Portman, from the Medical Officers of the Sherborne Union, praying for a redress of their grievances; by Lieutenant-Colonel Kingscote, from the Medical Officers of the Thornbury Union to the same effect; by Mr. Horsfall, from the Cheshire and Lancashire branch of the British Medical Association, in favour of amending the laws affecting the Medical Profession.

METROPOLITAN WORKHOUSES.

Lord Raynham moved that a select committee be appointed to inquire into the condition and administration of metropolitan workhouses, and into the arrangements made and carried out by the parochial authorities of the metropolis for giving relief to the poor. He thought the mismanagement of the metropolitan workhouses a subject deserving the consideration of the House. Though the enormities to which he intended to refer were matters of notoriety, he would, nevertheless, support his motion by instancing certain cases. Dr. Bence Jones, who was appointed to inquire into the state of the workhouse of St. Pancras, after entering into various matters of detail connected with the condition in which he found the workhouse, went on to state that he could use no other term to describe what he had seen than the word "horrible." It seemed that these metropolitan workhouses were mismanaged, not with respect to two or three matters only, but in regard to almost every circumstance conected with the administration of those establishments. The want of classification was universal throughout them. The screwing down of salaries led to the officials being of a very unsatisfactory character. A matter which required alteration was the system of employing paupers as nurses in the sick wards. In most of these workhouses the wards were overcrowded, and no proper measures were taken for their ventilation. The result of this was the production of a great amount of disease and death. There had been several cases lately of suicides and deaths, caused by the neglect of the medical officers.

Mr. W. Williams said the Lunacy Commissioners had certainly reported that the workhouse of Marylebone did not afford sufficient accommodation for pauper lunatics, but the guardians and the vestry immediately set about carrying into effect the suggestions of the commissioners.

Mr. Bouverie thought the noble lord had entirely failed to establish a case which would justify the appointment of a committee. There were between forty and fifty workhouses in the metropolitan district, and, if a committee were appointed to investigate their management with any care, the inquiry would necessarily extend over two or three sessions. The noble lord arraigned the conduct of the parochial authorities, and it would be necessary that before a committee he should prefer regular charges against them, and that an opportunity should be afforded them of offering a full defence. The inquiry would therefore be almost interminable.

Mr. P. W. Martin, in supporting the motion, referred to the state of matters in St. Pancras. The workhouse was overcrowded, the inmates of the infirmary suffered from a poisonous atmosphere, and much disease was the consequence; while in the lunatics' ward great abuses prevailed, such as compelling a cleanly and a filthy patient to sleep together. This was the state of things on the 20th of December last.

But, bad as matters were in the house, the management of the out-door relief was still worse; and he contended, therefore, that there was a loud call for inquiry.

Mr. Drummond said he thought the statement made to the House by the President of the Poor Law Board (Mr. Bouverie) made the case for inquiry much stronger than it was before. The right hon. gentleman stated that he had abundant power placed at his disposal. If he had that abundant power, why did he not exercise it? It was perfectly clear that the poor in these London unions were most shamefully treated. He was conversant with the treatment of pauper lunatics. In the rural districts the country gentlemen tried to get those poor lunatics into proper asylums, because they knew that there the unfortunate creatures would be kindly and skilfully treated by persons who really devoted themselves to the care of such people. But in those workhouses there was no one who knew anything about such matters, and the result was that the poor lunatics were most cruelly treated. (Hear, hear.)

Sir J. Pakington said, considering the period of the session, and, what was of more importance—namely, the spirit in which the motion had been met by the President of the Poor Law Board—he thought the object of the noble lord would be best attained by leaving the matter in the hands of that right hon. gentleman for the present. (Hear, hear.) He (Sir J. Pakington) understood that the right hon. gentleman (Mr. Bouverie) had promised to give his attention to the subject, and with that assurance the noble lord might be satisfied. He (Sir J. Pakington) believed that much irregularity prevailed in the workhouses of the metropolis, and unless the state of things there became more satisfactory, he thought the noble lord at the commencement of the next session would have abundant ground for repeating his motion.

Lord Raynham said, unless he received an assurance from the President of the Poor Law Board that some steps would be taken in this matter he should divide the House.

No response being made the House divided, when there appeared—

For the motion	52
Against it	73
Majority	—21

POOR-LAW MEDICAL OFFICERS.

In answer to Sir J. Trollope,

Mr. Bouverie said, that an order had recently been issued by the Poor Law Board directing that the appointments of Medical Officers to Poor Law Unions should be made permament. Their salaries were fixed by the Poor Law Guardians, and the funds from which they were paid were partly the rates levied in their districts and partly a vote of that House. In those cases in which the remuneration was extremely low the Poor Law Board endeavoured to procure an addition to it; but he was sorry to say that, generally speaking, the Poor Law Guardians were not disposed to agree with the Poor Law Board as to the propriety of such addition. Unless the Poor Law Board entered into a violent contest with the Boards of Guardians on that subject—which he was not at all prepared to do—it would be difficult indeed to obtain an increase of the salaries. He ought at the same time to state that, in a great number of Unions, the Medical officers were sufficiently remunerated. There could be no doubt that the great body of them discharged their duties with fidelity and diligence. Any one acquainted with the present operation of the Poor Law must admit that a great improvement had been effected in the administration of Medical relief to the poor. (Hear.) He could not hold out any hopes to the Medical officers that their salaries would be increased by means of an increased vote of the House, because the House was reluctant to grant even the usual vote under the head of Poor Law Medical relief. As occasion permitted, the area within which the Medical officers had to discharge their duties would be diminished.

MEDICAL PROFESSION (No. 1) BILL.

Mr. Headlam moved that this Bill be read a second time.

Mr. Crauford moved to defer the second reading for six months. He contended that this Bill sacrificed too much to the interests of the Medical corporations, perpetuating an objectionable system; and that it was impossible that the proposed General Council could work satisfactorily. Though in theory a representative council might be thought the best, he was now convinced that it would be impossible for such a body to work in a manner satisfactory to the Profession; that from its size it would be unwieldy and unmanageable, and that though nominally based on a system of representation, it would not have within itself that element which was essential to its proper working—namely, the element of responsibility. On the other hand, however objectionable in principle might be a Council nominated by the Government, a body so constituted would certainly be responsible to the country through Government; the head of the council would have a seat in that House; and thus you really carried out the principle of responsibility to the public.

Mr. Black seconded the amendment.

Viscount Bury, as a lover of representative institutions, could not but approve the Bill submitted by the hon. and learned gentleman (Mr. Headlam) in preference to one based on the principle of Government nomination. The noble lord's Bill called upon the House to believe that the President of the Board of Health would send to the Council better qualified persons than these licensing bodies, composed, as they were, of men who had devoted their whole lives to the study of their profession. He feared, too, lest this system of nomination should be made use of as a political engine; that when one party was in power, the most necessary qualification for members of the Council would be that they should be good Whigs, and so with the other side of the House. In one point he certainly looked upon the Bill of the hon. and learned gentleman as superior to that of the noble lord, because it provided no exclusion for what were called Medical heresies. If such men as Jenner and Harvey had lived under such a Bill as that of the noble lord, he had no doubt that, owing to the jealousy which unfortunately always distinguished an exclusive profession, they would have been placed beyond the pale. The measure brought forward by his hon. and learned friend provided that there should be no such exclusion; and this, among other reasons, would determine him to vote in its favour.

Colonel Sykes said he would express his entire concurrence in the principle of representation as opposed to that of nomination by the Crown. He thought, however, that the bill of the hon. and learned gentleman unnecessarily multiplied examinations and fees, while the noble lord's measure accomplished the object in view much more simply and cheaply.

Colonel French thought the amendments of the noble lord (Lord Elcho) might be introduced into the bill of the hon. and learned gentleman when they went into committee.

Mr. W. Ewart acknowledged that there was something very fascinating in the system of representation, but after mature consideration, looking to that which was essential to the value of any measure—namely, its workable character, he was inclined to support the Bill of the noble lord. Under its provisions there would be in this House a person who would represent, more or less, the medical body, and who would be responsible to Parliament. The noble viscount (Bury) had suggested that this nominated council would assume a political character; but he did not see that there was any objection in this argument, which would not apply equally to the Board of Customs, the Board of Inland Revenue, or the Board of Trade.

Mr. Mitchell thought the Medical Profession, more than any other, required to be governed by a representative system. The most eminent medical men had always been of that opinion. He should therefore support the Bill of the hon. and learned member for Newcastle.

Mr. Black believed that the best test of a Medical man's competency was the opinion of the public, and that, however rigid might be the system of Medical examination, men incompetent to practise would succeed in obtaining certificates of competency from the examiners. There ought not to be any class distinctions in the Medical Profession. Those who had attained the highest eminence in this country as Consulting Physicians probably started in their public career by attending to infantile diseases. He (Mr. Black) objected to the Bill, because it gave such immense power to the corporations of the Profession (hear), and placed such restrictions upon its practice. One of its clauses provided that in the case of a Practitioner removing from one part of the kingdom to another he should not be allowed to practise in the place to which he had removed until the expiration of two years, so that he must remain perfectly idle for those two years. He (Mr. Black) had no desire to injure the ancient Medical institutions; they had been of great service to the community; but he thought it should be optional with Physicians or Surgeons to enter them, and not compulsory. The majority of the Profession would, no doubt, have the ambition to seek admission into them. It was not on the privileges which they might

confer, but on his skill and good conduct, that a Practitioner ought to rely for his success.

Mr. Grogan said, the singular feature of this debate was that all the members from the north side of the Tweed supported the Bill of the noble lord, [Lord Elcho, "No,"] while the members from the other side of the Irish Channel supported that of the hon. and learned member for Newcastle-on-Tyne. The hon. member who had just sat down wanted to have free trade in the Medical Profession as well as in manufactures, but all States had found it necessary for the sake of the public safety to prevent the care of the public health from being intrusted to incompetent men. (Hear, hear.) The Medical Profession had attained high eminence without Government interference, and he hoped that that House would resist any attempt to place it under the control of a Government nominee.

Mr. Neate said, it was for the interest of the State at large to maintain, in some shape or another, Professional aristocracies, for if they were destroyed the only other aristocracy which remained—that of wealth and position—would be placed in a more isolated and insecure position than before. (Hear, hear.)

Mr. Vance regretted that the Bill No. 1 did not deal fairly with the apothecaries of Ireland. That Bill, however, properly provided for existing and constituted rights, while the Bill of the noble lord destroyed them altogether. He thought that the House should pursue the constitutional course in this matter, and reform existing institutions rather than destroy them.

Mr. T. Duncombe said, that there were no fewer than five Bills connected with the Medical profession upon the notice paper of the day. In all these Bills he saw no provision whatever made for the interest of the public. We had already State religion and State education, and it was proposed now that we should have State physic. To that he objected. What the public required upon the subject was that all Medical Practitioners who underwent a fair examination should be placed upon an equal footing; but the examination should not be altogether conducted either by a council composed of professional men or of nominees of the Crown. It was notorious that the chartered bodies had always stood in the way of improvement. The first man who introduced the tourniquet had been persecuted for it; the German practitioner who introduced cantharides as a cure for dropsy, was incarcerated in Newgate at the instance of the head of the College of Physicians. In the words of Sir Anthony Carlyle, physic, after all, was an art founded on conjecture and improved by murder; and instead of appointing a council, therefore, composed of the chartered bodies, he would say, "Leave the Colleges of Physicians and of Surgeons, the one to prescribe for, and the other to operate upon the public, and let the Apothecaries' Company drench them both." (A laugh.) He was opposed to the system of registration, and thought that nothing could be more humiliating to the Profession than to register and number them like the drivers of hack cabs.

Mr. Blake supported the Bill (No. 3), and believed that the majority of the members for Ireland would be found to take the same view of the case, on the ground among others that the other Bill inflicted a great injustice upon the Apothecaries.

Mr. Briscoe supported the second reading of Bill No. 1 on account of the composition of the council. As six were to be nominated members there would be no difficulty in having one of them a member of that House, while the seventeen representative members would insure the confidence of the Profession and of the public.

Lord Elcho said, that the anomalies at present were so great and so injurious that he had long felt it to be desirable that some measure of reform should be carried into operation. He would just mention to the House three of the anomalies of the present system. In Edinburgh there was a distinguished Professional man, Professor Simpson, who was, perhaps, as eminent in his branch of the Profession as any one in the kingdom. He was Physician to Her Majesty in Scotland; but, under the present state of the law, if he were to be called to London in consultation with any of Her Majesty's Physicians on the subject of Her Majesty's health, he would be liable to be prosecuted for practising within seven miles of London. Such of the population as resided within seven miles of the metropolis were the property of the Royal College of Physicians of London—that was their hunting ground; and if any Medical man from Dublin or Edinburgh came to attend a gentleman in London with whose constitution he was acquainted, he would be liable to be prosecuted. (Hear.) Again, the degree of the London University was considered one of the highest Medical testimonials in the world; and a London University graduate might practise in any part of Great Britain except within seven miles of the very place where was situated the University from which he obtained his degree. (Hear.) The third anomaly was that the Archbishop of Canterbury possessed the power of granting Medical degrees without examination. (Hear.) He went on to argue that the proper course was to take up the question in the position in which it was left by the Select Committee of 1856; whereas Mr. Headlam's Bill, with the exception of a slight alteration in the constitution of the council, was the same as the unamended Bill of last session, and he opposed it on the ground that it gave a practical monopoly to the Medical Corporations. What, he asked, were these Medical Corporations? They were merely mediæval guilds, like those of the grocers, shoemakers, and other municipal institutions dating from the same time; but the existence of old charters giving the universities the right of licensing, showed clearly that they possessed the right long before these Medical Corporations. He asked hon. members whether in 1857 they found old Corporations, such as the city of London for instance, managing the affairs with which they were intrusted so well that they would grant to these Medical Corporations, the relics of ancient guilds, powers which they had not heretotore possessed? It was asked, not that tdey should have a fair share of power—to which he should not object—but that they should have a complete monopoly. He defended his own Bill, which was, he said, the Bill of the Select Committee. The real principle in question he contended was whether or not a monopoly should be given to the Corporations, the constitution of the council being a matter of detail to be considered in a Committee on the Bill. But he wished to show that other persons beside the Committee of 1856 considered the constitution of the council not objectionable. A gentleman, whose name could never be mentioned without honour, had drawn up a most able analysis of the two Bills. Mr. Warburton, the gentleman he referred to, said, on the part of the senate of the University of London, that that body greatly preferred the constitution of Lord Elcho's Council, with its Committees, to the constitution of Mr. Headlam's general council and branch councils. Again, the Royal College of Physicians of Edinburgh last year suggested—

"Whether there is not a danger that delegates sent directly by the corporations, or by any public bodies, would not be likely to lean too much to the interests of those bodies, and therefore the less to those of the public and the profession in general?"

And therefore proposed—

"That the number of the council should not exceed 12. That the President of the General Board of Health should be the Chairman of the Medical Council."

So, after having followed the opinion of these corporations, the members of the Committee of 1856 found the corporations now coming forward and denouncing the Bill as a strong interference with their rights. Such inconsistency was monstrous. The Royal College of Surgeons was active in its opposition to his Bill in the present year, although last year a petition from that body to the House of Commons stated—

"That your petitioners are of opinion that a medical council, or central authority of some kind, might be instituted with advantage to the public, in order to establish and enforce education and examinations of equal value, as a foundation for reciprocity of practice in the three kingdoms. They believe that a Council nominated by the Crown, not exceeding five or seven in number, including two non-medical members, might usefully regulate the course of education so as to secure the harmonious co-operation and efficiency of the several schools and licensing bodies. The more immediate connexion with the State thus established would create an interest on the part of Government in the affairs of the Profession, would insure the personal competency and responsibility of the Council, and raise the Profession in the estimation of the public."

He trusted, therefore, that the House would hear no more of the injustice and degradation endeavoured to be heaped upon these corporations by means of a council nominated by the Crown. After defending the "one portal" system,

and quoting professional authorities in its favour, he referred to a document which had been circulated among hon. members, and which denounced him for disturbing the unanimity of the Medical Profession on this subject. That paper was written by a member of the College of Physicians of London, and he doubted whether the oldest member of the House had ever known so extraordinary a production addressed to members of Parliament. The paper was headed, "Remarks on Mr. Headlam's 'Medical Profession Bill' and Lord Elcho's opposition." The first sentence ran thus :—

"Surprise not unmixed with indignation is the general feeling of the Medical Profession of the three kingdoms on finding that Lord Elcho, as the advocate of the Scotch Universities, should have come forward to oppose the Medical Bill which was read a first time last Wednesday by Mr. Headlam."

The Bill was not his (Lord Elcho's) Bill, nor was it the Bill of the Scotch Universities, but it was the Bill of a Select Committee, whose names afforded a sufficient guarantee that no "job" could be contemplated. He did not know whether the writer of this paper spoke in the name of the College of Physicians, but at all events he belonged to their body, and he proceeded to say :

"It is scarcely likely that any Select Committee of the House of Commons should be in a position to comprehend the complex bearings of this difficult subject, still less to amend a decision arrived at with so much knowledge and so much care."

There was a compliment to the mental and judicial qualifications of Committees of the House of Commons ! The cream of this document was, however, contained in its concluding sentence.

"The whole Profession, therefore, are determined to regulate the laws by which they are to be governed, and they are decided not to allow any member of the House, however popular he may be, to come forward, partially instructed, and biassed, as it would seem, by a small and mercenary interest, to interfere with what they believe to be wise, just, and prudent legislation."

(Laughter.) Such a declaration emanating from the College of Physicians, expressing their determination not to allow any member of the House of Commons to interfere with what they in their wisdom conceived to be "wise, just, and prudent legislation," was really so alarming that he felt some hesitation in inviting the House to attempt to deal with this question. If they did so, they might have Dr. Mayo, at the head of the College of Physicians, marching down to the House of Commons and ordering that "bauble" (pointing to the mace upon the table) to be taken away. ("Hear," and laughter.) He (Lord Elcho) thought that since the memorable declaration of the Grand Monarque, "L'état, c'est moi," this production of the College of Physicians had not been surpassed. (A laugh.) He (Lord Elcho) must deny, however, that the unanimity which was alleged to prevail among members of the Medical Profession with respect to this question really existed. The Medical Association of Edinburgh, the Universities, the London University, and many of the corporations, were dissatisfied with the Bill of the hon. member for Newcastle-on-Tyne, and he (Lord Elcho) thought, therefore, there was no chance of its becoming law. The hon. and learned gentleman (Mr. Headlam) would, doubtless, lay great stress upon the petitions in favour of his measure, but he (Lord Elcho) contended that they ought to have no weight, and he would tell the House why. He found in the *Medical Journal*, the organ of the British Medical Association, a report of a meeting, at which it was resolved that petitions should be forwarded to Parliament in favour of Mr. Headlam's Bill, and the following recommendation was given on the subject :—

"It is trusted that each member will write out and sign a petition, and at once forward it to a member of the House of Commons. The number of petitions is greatly more important than the number of signatures to a single petition ; therefore no time should be wasted in endeavouring to obtain numerously signed petitions."

(Laughter.) "Numerously signed petitions" meant, of course, numerous petitions, each signed by an individual. ("Hear," and a laugh.) He believed he might state that, although among the deputation who waited upon Lord Palmerston on this subject, the delegates of the Medical Association of Great Britain were mentioned, the Committee of that Association had not authorized any member of their body to attend. Among the deputation were also delegates from the College of Surgeons of London, but the next day a letter appeared in the *Times*, signed by a member of the College of Surgeons, who said that the gentlemen who professed to represent the College of Surgeons in the deputation had no more right to speak in the name of the 12,000 Surgeons of England than would any three members of that House be entitled to go to the Government as representatives of the House of Commons. He (Lord Elcho) maintained, then, that the unanimity which was alleged to prevail among the Profession did not in reality exist. Indeed, the interests of the universities and of the governing bodes were so discordant that it was impossible to establish anything like unanimity. He hoped, therefore, that the House, instead of assenting to the Bill of the hon. member for Newcastle-upon-Tyne would adopt the Bill drawn up by the Committee to whom they had referred the consideration of the subject. It was absurd to endeavour to obtain the consent of all the various bodies whose interests would be affected by such a measure. He was aware of the Quixotic nature of the enterprise he had undertaken in endeavouring to induce the House to oppose an organised agitation which extended throughout the three kingdoms. He knew what influence must necessarily be exercised by men of intelligent and highly cultivated minds, whose profession it was to heal the sick, to relieve the suffering, and to smoothe the pillows of the dying. Their mission was indeed high, and no one could wonder at their influence, It must be remembered, however, that physicians were but men, and that the House was now called upon to deal with men, not in their individual but in their corporate capacity. (Hear, hear.) If hon. gentlemen, setting aside all the influence of private feeling and of personal predilection, would view this question dispassionately, and upon its merits alone, he had little fear of the result, and he confidently anticipated that they would reject the monopolizing Bill of the corporations, and would substitute in its place the Bill of the Select Committee. (Loud cheers.)

Mr. Napier, whose name was on the back of Mr. Headlam's Bill, supported the motion for its second reading. His object, he said, was that the House should proceed upon enlightened educational principles, and the question was whether this Bill embodied such principles. Lord Elcho's Bill would place the whole Medical Body under the control of the Crown, whereas this Bill gave to the Universities the educational power, as teachers ; the licensing authority residing in the Medical Bodies, represented in the general Council. The other Bill would not secure a sound and sufficient education for the Profession. The noble lord maintained the right of the Universities to grant licences to practise, but he (Mr. Napier) thought the function of the Universities should be to afford a sound preliminary and preparatory training, leaving to other bodies who were better competent to judge of qualifications for practice the duty of licensing.

Mr. Cowper, after briefly noticing some parts of Mr. Napier's argument, adverted to the difficulty of legislating upon a subject on which there was such a conflict of opinions ; for, although there had been allegations of unanimity, there was no real concurrence of sentiment in the Profession. He preferred the Bill which had emanated from the Select Committee, and thought that the influence of the Crown ought to be felt over the Medical body. But the principle of the Bill was not the constitution of the Council, which was a matter of detail ; its real principle was as to what should be the legal qualification of Medical Practitioners, the standard of which was not improved. For this and other reasons, which he detailed amid symptoms of impatience, he could not assent to the second reading of the Bill.

Mr. Headlam, in replying to objections, and stating the reasons why his Bill should be preferred to the other, complained that by Lord Elcho's Bill the whole organization of the Medical Profession was destroyed, and that those clauses whereby the Profession was placed under the arbitrary dominion of a council nominated by the Crown, and presided over by the President of the Board of Health, had been proposed and introduced into the Bill in the committee by the chairman, Mr. Cowper himself.

Mr. Conningham said that neither of the Bills met his views, and he should therefore vote against both. He should oppose that now before the House on principles of free-trade, because he did not want to establish a great monopoly. (A laugh.)

The House then divided, when the numbers were,—

For the second reading	225
Against	78
Majority	—147

The Bill was therefore read a second time. The Committee was fixed for Wednesday next.

MEDICAL BILL. (No 3).

Lord ELCHO said that as he understood that the discussion, which had just concluded, had been upon both these Bills, and the result of the division was in favour of No. 1, and against No. 3, he should not at present attempt to proceed further with the latter. At the same time, as he ventured to prophesy that the Bill No. 1 would not pass into law this session, he gave notice that if the Government did not take up the question, he should next year reproduce the Bill No. 3 in its present form. Under these circumstances, he moved that the order of the day for the second reading of the Medical Bill No. 3 should be read and discharged.

The order was accordingly read and discharged.

MEDICAL NEWS.

ROYAL COLLEGE OF PHYSICIANS.—At the usual quarterly meeting of the Comitia Major, held June 25th, the following gentlemen having undergone the necessary examination for the diploma, were admitted members of the College :—

HARRIS, Dr., Great Ormond-street.
HASTINGS, Dr. CECIL, Albemarle-street.
MEYER, Dr., London.
MOON, Dr., Old Stein, Brighton.
STALLARD, Dr., Leicester.

The following gentlemen were admitted Extra-Licentiates :—

ALCOCK, Dr., Evesham, Worcester.
LANCASTER, Dr., Clifton.

The following gentlemen were elected Censors for the ensuing year :—

BENNETT, Dr. RISDON, Finsbury-square.
JEAFFRESON, Dr., Finsbury-square.
JONES, Dr. BENCE, Brook-street.
PITMAN, Dr., Montague-place.

ROYAL COLLEGE OF SURGEONS.—The following gentlemen, having undergone the necessary examinations for the diploma, were admitted members of the College at the meeting of the Court of Examiners on the 26th instant :—

BARRETT, JOHN TOPPING, Oldham, Lancashire.
BOOTH, BRABAZON SHIELS, Darver Castle, co. Louth.
HAYDEN, ROBERT OWEN, Caernarvon.
HICKS, ROBERT, Lewisham.
KERSHAW, JOSEPH, Manchester.
LOWE, EDWIN, George-street, Hanover-square.
M'CLEMENT, RICHARD CARR, Larne, co. Antrim.
RUFFE, RICHARD EDWIN, Tamworth, Staffordshire.
TAIT, GREVILLE EWING, Heytesbury, Wiltshire.

APOTHECARIES' HALL.—Names of gentlemen who passed their examination in the Science and Practice of Medicine, and received Certificates to Practise on June 25th, 1857 :—

AYLING, G. F., (as an Assistant,) Great Portland-street,
BROOKS, ARTHUR D'OYLEY, Henley-on-Thames, Oxon.
HAYES, RICHARD HENRY, Longton, Stafford.
PILCHER, EDWARD W. H., Arundel-terrace, Islington.
TAIT, ROBERT, Coldstream, N.B.

DEATH.

JOHNSON.—June 11th, much regretted, Samuel Johnson, M.D., of Foxley House, near Redditch, aged 52.

THE HARVEIAN ORATION.—The annual Latin oration, in commemoration of Harvey, and of his great discovery, was delivered on Saturday last, at the Royal College of Physicians, by Dr. Copland, who commenced by pointing out the great advantages which had accrued to all the departments of medical science, as well as to the community at large, from the discovery of the circulation of the blood. After adverting to the state of medicine during the dark ages, and tracing its rise concurrently with that of the Reformation and of free discussion, the orator briefly described its subsequent rapid progress, which he attributed to the discovery made by Harvey. Expressing his inability to notice within the time allotted to him the many eminent men whose names graced the annals of the institution, he referred to the loss which that body had sustained since the last commemoration, by the death of Dr. Paris, their late President, whose distinguished merits he proceeded to estimate, and to whose high-minded and honourable character he paid a well-deserved tribute. Dr. Copland then alluded to the circumstance which, in his opinion, chiefly tended to depress the social state of physicians and medical men in the present day—namely, a want of due protection by the Government, from the degrading arts of empirics and of irregular practitioners. He congratulated the College on the fact that none of its members had departed from the honourable, the rational, and the scientific practice of medicine ; nor had, even for a moment, allowed themselves to be seduced by that public patronage it had become the fashion to bestow on the absurd, worthless, and injurious quackeries of the day. He exhorted the members, individually and collectively, to persevere in their adherence to that honourable course, and thereby maintain the high character of their institution, and promote true medical knowledge ; and then concluded by observing that, although the physician rarely acquired either fortune or rank, he had the inward satisfaction of knowing that he conferred the greatest benefits it was in the power of man to bestow on his fellow-creatures. Dr. Copland's oration was listened to with great attention, and rewarded with general applause at its termination ; and a murmur of approbation at the eulogium of Dr. Paris, proved how much appreciation was felt for the merits of the late President.

HARVEIAN SOCIETY.—At the last meeting of this Society, held on the 18th of June, Dr. Henry William Fuller was appointed Treasurer, in the place of Dr. Joseph Ridge, resigned, and Dr. Ridge was elected one of its ordinary members.

POOR-LAW MEDICAL REFORM.—A meeting of the two Aberdeen Medical Schools was held on the 26th inst. in Marischal College on the above subject, when the following Resolutions were unanimously adopted :—1. This meeting considers that the remuneration of the Poor-law Medical officers of the United Kingdom is altogether inadequate, and their Professional position most unsatisfactory ; and pledges itself to support any measures tending to redress these grievances. 2. That the suggestions contained in Mr. Griffin's pamphlet are eminently calculated, if carried out, to improve the sanitary condition of the labouring classes, to diminish pauperism, and to secure to the Poor-law Medical officers an adequate remuneration for their services, and that too at the least possible public expense. 3. This meeting would recommend all students on their becoming qualified for practice to refuse Poor-law Medical appointments till the grievances complained of are redressed. 4. That Mr. Griffin deserves the thanks not only of the Medical Profession for advocating its cause, and trying to procure for it what is its due, but of the community at large, in whose cause he contends, when he strives for a Reform which will ameliorate the condition of the poor.

MONUMENT TO BICHAT.—As long ago as 1845, on the occasion of the meeting of the celebrated Medical Congress at Paris, one of its last acts was to vote the removal of the remains of Bichat from the deserted cemetery of St. Catherine to a piece of ground presented by the City of Paris in Père-la-Chaise. A magnificent funeral took place, and it was also determined to erect a statue to his memory. Many events have delayed the completion of this ; but at last a bronze statue, the last work of the great sculptor David of Angers, is to be publicly inaugurated in the portico of the great amphitheatre at the Faculté de Médecine, on the 8th of July next.

LONDON COW-HOUSES.—The inspectors have completed during the month a careful survey of all the cow-houses in Marylebone. These results have brought to light much overcrowding, which the regulations passed by the vestry will tend to abate. The number of cow-keepers in the parish is 76 ; the number of sheds 142 ; the amount of cows 1542. A good many of the cows have been found to be below the average condition of health, and several of the sheds in a bad state. Numerous complaints are continually made to me of the nuisance to which the inhabitants in the neighbourhood of some of these cow-houses are subjected.—*From Dr. Thomson's Report on the health of Marylebone.*

WREXHAM INFIRMARY.—At a meeting of the Committee held on the 1st inst., the Venerable Archdeacon Wickham in the chair, it was resolved, "That this Committee, being sensible of the valuable services rendered to this institution by Dr. Edward G. Pitt, as House-Surgeon, during a period of upwards of five years, desire to record their high appreciation of his professional ability and unwearied assiduity in the discharge of his numerous duties, uniform kindness to the patients under his care, and high moral character, and that the secretary be requested formally to transmit to Dr. Edward Pitt a copy of this resolution, under signature of the chairman."

MURRAIN. — INOCULATION OF CATTLE.—The Belgian correspondent of the *Manchester Guardian* states that a Dr. Willems, of Hasselt, has published a letter, in which he affirms that the most beneficial effects have been derived in Friesland by inoculating cattle as a preservative against pleuropneumonia. The inventor asserts that, according to official statistics laid before the States' deputies of Friesland by the Burgomaster of Baarderadel, the loss of cattle inoculated did not exceed six per cent., while the deaths among those not submitted to the process was forty per cent. In Friesland this process, tried on many thousand head of cattle, was practised at the expense of the province, and, according to the Dutch agricultural journal *Akkerbow*, with incontestable success.

SMALL-POX AT WOLVERHAMPTON. — Small-pox is extremely virulent in the town of Wolverhampton, and also in most of South Staffordshire. Last Friday week, at the meeting of the Board of Guardians, it was resolved that the Medical and other officers of the Union be requested to carry into effect as far as possible the Act of Parliament to extend and make compulsory the practice of vaccination; and also that the clerk procure the necessary books and forms from the Registrar General, and supply the Medical officers and registrars therewith. It was further resolved that bills be printed and circulated, calling the attention of the public to the penalties incurred by the neglect of vaccination.

AGUE IN LONDON.—Dr. Thomson in his last report on the Health of Marylebone, referring to eight cases of ague during the last month, says:—"The origin of most of these can be traced to the insalubrious marshes on the lower part of the Thames at Woolwich and Sheppy, where the patients have gone for summer work, and have returned to partake of the benefits of the charitable institutions of this parish. Cases have likewise occurred in other parishes, and afford evidence that the delcterious influences of the undrained neighbourhood of London cannot be viewed as merely local, but as prejudicing the health of the residents in the more densely populated parts of the metropolis."

VITAL STATISTICS OF LONDON.

Week ending Saturday, June 27, 1857.

BIRTHS.

Births of Boys, 867; Girls, 805; Total, 1672.
Average of 10 corresponding weeks, 1847-56, 1567·6.

DEATHS.

	Males.	Females.	Total.
Deaths during the week	543	462	1045
Average of the ten years 1847-56	...	...	1090
Average corrected to increased population	...	...	1199
Corrected average for corresponding week in ten years 1847-56	573·9	515·7	1089·6
Deaths of people above 90	...	...	2
Deaths in 13 General Hospitals	35	18	53

METEOROLOGY.

From Observations at the Greenwich Observatory.

Mean height of barometer	30·058 in.
Mean temperature	67·3
Highest point of thermometer	88·5
Lowest point of thermometer	53·5
Mean dew-point temperature	52·2
General direction of wind	Calm.
Whole amount of rain in the week	0·21
Amount of horizontal movement of air in the week ...	180 miles.

DEATHS REGISTERED DURING THE WEEK.

Causes of Death.	In the Week ending Saturday, June 27, 1857. Deaths of Persons. At all Ages.	Under 20 Years of Age.	At 20 and under 40 Years of Age.	At 40 and under 60 Years of Age.	At 60 and under 80 Years of Age.	At 80 Years of Age and Upwards.	Averages of Temperature and Deaths in 10 Weeks.
Mean Temperature	Mean temp. 67°3						60°2
ALL CAUSES	1005	489	143	187	150	24	1089·6
SPECIFIED CAUSES	997	484	143	186	150	34	1079·4
DISEASES:—							
1. Zymotic Class	195	164	11	13	6	1	239·6
2. Dropsy, Cancer, and others of uncertain seat	48	6	6	16	17	3	46·5
3. Tubercular Class	190	74	62	46	8	..	192·1
4. Of Brain, Nerves, etc. ..	137	61	12	27	29	8	128·2
5. Of Heart, etc.	46	4	5	16	20	1	42·4
6. Of Respiratory Organs ..	112	52	12	22	23	3	113·9
7. Of Digestive Organs ..	52	19	8	14	8	3	62·9
8. Of Kidneys, etc.	12	1	2	6	3	..	11·6
9. Of Uterus; viz. — Puerperal Disease, etc. ..	8	..	5	1	1	1	10·6
10. Of Joints, Bones; viz.— Rheumatism, etc. ..	5	..	1	1	3	..	8·4
11. Of Skin, etc.	1	1	..	..	..	..	2·4
12. Malformations	1	1	..	..	..	..	2·7
13. Debility from Premature Birth, etc.	39	37	1	1	..	..	25·8
14. Atrophy	30	23	..	..	7	..	28·5
15. Age	33	..	..	..	20	13	35·2
16. Sudden	13	9	1	2	..	1	32·1
17. Violence, Privation, etc. ..	75	32	17	21	5	..	96·5
CAUSES NOT SPECIFIED	8	5	..	1	..	..	10·2

DEATHS IN SUB-DISTRICTS FROM EPIDEMICS.

	Population. 1851.	Small-pox.	Measles.	Scarlatina.	Hooping-Cough.	Diarrhœa.	Typhus.
West	376,427	1	5	6	3	3	1
North	490,396	2	7	3	8	7	3
Central ..	393,256	1	11	3	7	6	3
East	485,522	1	10	8	16	10	6
South	616,635	..	3	2	12	7	9
Total ..	2,362,236	5	36	22	46	33	27

BOOKS RECEIVED.

Reasons for adopting the Rational System of Medicine. By F. W. Horner, M.D. Hull. 1857.

L'Art Dentaire. No. 5. Paris. 1857.

Archiv für die Holländischen Beiträge zur Natur und Heilkunde. Band I. Heft 1 and 2. Utrecht. 1857.

The Principles of Moral Insanity. By John Kitching. York. 1857.

The Structure and Functions of the Eye. By Spencer Thomson, M.D. London. 1857.

Introductory Lecture on Climate. By A. W. P. Pinkerton, M.D. Edinburgh. 1857.

On Sanitary Work and Experience in Belgravia. By C. J. B. Aldis, M.D. London. 1857.

Rain and Rivers. By Colonel Greenwood. London. 1857.

Vogel's Archiv. 111 Band, 2 Heft. Göttingen. 1857.

Digestion and the Teeth. By Andrew Nisbet. Glasgow. 1857.

Braithwaite's Retrospect. London. January to June, 1857.

A Class Atlas of Physical Geography. By W. M'Leod, F.R.G.S. London. 1856.

Questions on M'Leod's Class Atlas. By the Rev. T. Bowman, A.B. London. 1857.

Vade-Mecum for Tourists in France and Belgium. London. 1857.

Lives of British Physicians. London. 1857.

Pereira's Materia Medica and Therapeutics. Fourth Edition. Vol. II. Part II. London. 1857.

The Chemical Atlas. By A. Normandy. London. 1857.

The Dictionaries to the Chemical Atlas. By A. Normandy. London. 1857.

Vacation Thoughts on Capital Punishments. By Charles Phillips, A.B. London. 1857.

Ranking and Radcliffe's Abstract. January to June, 1857.

The Medical Profession. By Edwin Lee, M.D. London. 1857.

The Baths of Germany, France, and Switzerland. By Edwin Lee, M.D. Third edition. London. 1857.

Burning the Dead, or Urn Sepulture. London. 1857.

The Liverpool Medico-Chirurgical Journal. July. 1857.

The Quarterly Journal of Dental Science. July. 1857.

TO CORRESPONDENTS.

Dr. Embleton.—Many thanks. We have not space this week for the report.

R. W.—It is not wise to raise any homœopathist to the dignity of a martyr.

Forethought had better apply to the Secretary of the Society for the Relief of the Widows and Orphans of Medical Men, Berners-street.

M.D.—The letter on the Scottish Lunacy Bill arrived too late for last week's number. *M.D.* should also have given his name.

A Musical Doctor.—The father of Handel practised as a physician at Halle, in the duchy of Magdeburg.

CONFERENCE OF THE MEDICAL AND SURGICAL CORPORATIONS, IRISH DEPARTMENT.

TO THE EDITOR OF THE MEDICAL TIMES AND GAZETTE.

Office, College of Surgeons, Dublin, June 26, 1857.

Sir,—We beg leave to express through your pages our thanks to Dr. O'Connor for the full and accurate report of what passed at the interview with which the deputations from the different Medical Corporations of the United Kingdom were favoured by Lord Palmerston, on Tuesday, June 9, at Cambridge-house, on the subject of the Medical Bills now before the House of Commons, and more especially as the representatives of the press were not permitted to be present. Had it not been for Dr. O'Connor's promptitude and great labour on the occasion, no accurate report of what took place could have been known to the Profession.

(Signed) J. MOORE NELIGAN, M.D., Representative, College of Physicians,
R. HARRISON, Prof. Anat. T.C.D.
HANS IRVINE, President } Royal College of Surgeons
R. C. WILLIAMS, } in Ireland.

Amicus.—The Chemists and Druggists are under no legal control whatever; they are not compelled to undergo any course of study, nor to pass any examination. The examinations of the Pharmaceutical Society are voluntary, not compulsory; and many of the members of that Society have joined it without passing any examination, and merely on payment of a fee. But that Society has done much to elevate the *status* of the Chemists and Druggists; and there are several gentlemen engaged in that business who are really scientific men. The *Pharmaciens* of Paris are compelled to attend lectures, and to undergo an examination, before being allowed to practise.

Mr. Bentham.—We cannot recommend any particular Life Assurance office; but our general advice would be, to read carefully the names of the Directors as preliminary steps in the investigation, and examine the Government returns as to their position.

An Apothecary.—The parishes in question are governed by local acts, and the appointments are, therefore, not under the immediate control of the Poor-law Board.

WET NURSES AND FOUNDLING HOSPITALS.

TO THE EDITOR OF THE MEDICAL TIMES AND GAZETTE.

SIR,—I thank you for giving me your opinion upon the subject of Wet Nurses; but I cannot refrain from offering a few observations with reference to that system, as well as the one I wish to see more generally adopted—I mean, bringing up the infant by hand. I quite agree with you in your remark (referring as it does to matters as they now stand), viz., that a good Wet Nurse is preferable to bringing up by hand. A "good" Wet Nurse is certainly better than bad hand-feeding. But when we consider how few healthy proper nurses there are out of the very large number who undertake the office, and again, the few persons who really understand how feeding a young infant should be managed, we may fairly ask whether good feeding by the bottle would not be far preferable to a bad Wet Nurse. It is known that numbers of infants die annually through injurious bringing up; many others live on a miserable existence, from complaints, disorders of various kinds, imbibed through the Wet Nurse. It is known also by persons well informed on these matters, that of the number of children who die prematurely from accident, neglect, and so on, the infants of Wet Nurses form a very large proportion (this is from being deprived of the fostering care of their own parent at so tender an age); hence a twofold mischief, in a physical point of view. The moral evils arising out of it are manifold; they cannot be entered into here. But I will briefly say with regard to bringing up by hand, that if attention could be given to it by nurses (monthly nurses are sadly deficient in this respect); if Training Hospitals or Institutions could make this branch a part of their plan, we might have a new race of educated, *i.e.* trained nurses, and the infant population would not furnish so large a number of deaths to be recorded.

I know of no Institution so well adapted for such a project as the Foundling Hospital—if the infants were inmates of the building so-called; at present they are not received there till they have attained the age of two years. Why the original intention of the founders of this noble Institution has been set aside, the present directors and managers best know; but it seems strange that the little innocents should be sent adrift, and scattered about in villages, under the vigilant eye of an Inspector, it may be, but still not under the shelter of that roof and that home which was raised (and, I believe, supported by benefactors whose intention it was and is) to protect and nurture them at the most helpless period of their earliest existence. This might become one of the finest and most important Institutions of the sort in the kingdom, if differently organized—there is very valuable machinery lying useless. Could the infants become inmates, a Nursery being thus provided, the growing up foundlings might assist, and thus receive instruction and training to fit them for the duties of the nursery after they leave the Hospital, which they do at sixteen years of age. Needlework is almost exclusively taught; a little house work and knowledge of the laundry; but the nursery duties are entirely neglected. This is the case (with a very few exceptions) in all Schools and other Institutions where training for domestic service is attended to; hence the great ignorance, prejudice, and want of principle, so prevalent in nurses and nursery maids. It is the most important capacity to be filled by well trained young women; and it is the one most neglected. Needlework is too much taught; the market is overstocked with needlewomen—hence low prices for work; and the poor creatures are often unwillingly driven to the streets to gain a precarious livelihood from a course which has been much discussed in the public journals of late. I am, &c.

M. A. B.

Alethes.—The vinegar-plant is hardly to be regarded as a plant, in the usual acceptation of the term; it is supposed by botanists to be an undeveloped and rudimentary form of the *Penicillium glaucum*. It is a kind of fungus produced during the transition of sugar into vinegar, and is probably the cause of the acetous fermentation.

A Hater of Quackery.—It is not true that the late Mr. Liston taught homœopathy to his pupils, or practised it among his patients.

A Dublin Friend.—The Doctor is really incorrigible. Poverty and ignorance have much to answer for.

Mr. Lonsdale's paper on Incisions of the Cuboid Bone shall appear next week.

Subscriber.—All candidates for Medical appointments in the East India Company's Service must go through the competitive examination.

L.S.A. will find all the information he requires respecting Licentiates in Midwifery in our last Students' number.

Communications are in type from Dr. Cotton, Dr. Hirschfield, Mr. Square, Mr. Savory, Dr. Morriss; with Reports of the Medical and Chirurgical and Epidemiological Societies.

COMMUNICATIONS have been received from—
Dr. ARNOTT; Dr. ODLING; Mr. WATSON; Dr. GAIRDNER; Dr. FONTAINE LOUIS; Mr. GRIFFIN; Mr. H. SMITH; Dr. NELIGAN; Dr. HARRISON; Dr. IRVINE; Dr. WILLIAMS; Mr. GORMAN; Dr. THOMSON; Mr. LONSDALE; PRESIDENT AND FELLOWS OF THE ROYAL COLLEGE OF PHYSICIANS; Mr. DARLINGTON; Mr. BAINES; Dr. BRIER; Mr. PHARMAN; Mr. LENT; Dr. JONES; Dr. VINER; Mr. KEALEY; Dr. WEST; Mr. STEPHEN; Dr. W. J. THOMPSON; Mr. R. STEVEN; Mr. W. WOOD; Mr. J. WAY; Mr. FENN; Mr. H. R. HARRIS; Dr. LONGTON; Mr. KENDALL; Mr. SLOMAN; Mr. MACKERETH; Dr. W. B. HAMILTON; Mr. W. WILLIAMS; Mr. R. RICHARDSON; Dr. W. CASS; Mr. E. J. PARTRIDGE; Mr. J. VALENTINE; MEDICUS; Mr. W. WOOD; Mr. LANSDOWNE, Bristol.

APPOINTMENTS FOR THE WEEK.

4. *Saturday* (*this day*).

Operations at St. Bartholomew's, 1½ p.m.; St. Thomas's, 1 p.m.; King's, 2 p.m.; Charing Cross, 1 p.m.

6. *Monday.*

Operations at the Royal Free Hospital, 1 p.m.; Metropolitan Free Hospital, 2 p.m.; Orthopædic Hospital, 3 p.m.

EPIDEMIOLOGICAL SOCIETY, 8 p.m.
ENTOMOLOGICAL SOCIETY, 8 p.m.
ROYAL INSTITUTION, 2 p.m. *General Monthly Meeting.*

7. *Tuesday.*

Operations at Guy's, 1 p.m.; Westminster, 2 p.m.

8. *Wednesday.*

Operations at University College Hospital, 2 p.m.; St. Mary's, 1 p.m.; Orthopædic Hospital, 3 p.m.

NORTH LONDON MEDICAL SOCIETY, 8 p.m.: Mr. J. L. Milton, "On the Treatment of Gonorrhœa without Specific Medicines."

9. *Thursday.*

Operations at St. George's, 1 p.m.; Middlesex, 12½ p.m.; Central London Ophthalmic, 1 p.m.; London, 1½ p.m.

10. *Friday.*

Operations at the Moorfields Ophthalmic, 10 a.m; Westminster Ophthalmic, 1½ p.m.

EXPECTED OPERATIONS.

At King's College Hospital, on Saturday, this day, the following operations will be performed:—Lithotomy; operation for prolapsus uteri; hare-lip (2 cases), by Mr. Ferguson. Removal of diseased bursa patellæ; removal of necrosed bone from lower jaw, by Mr. Partridge.

ORIGINAL LECTURES.

LECTURE
ON
CANCER CURES AND CANCER CURERS,

DELIVERED AT THE

Grosvenor Place School of Medicine, July 8, 1857,

By T. SPENCER WELLS, F.R.C.S.

Lecturer on Surgery at the School, Surgeon to the Samaritan Hospital, &c.

Gentlemen,—So much has been said lately about certain pretended cures of cancer, and so much interest has been excited by trials of a variety of caustics, with the hope that they might replace the knife in the removal of cancerous tumours, that I think you should be acquainted with the present state of the question. I shall, therefore, devote this lecture specially to an account of some of the persons who have been most notorious as "Cancer Curers," making a few remarks on the relative value of the knife and caustics in the treatment of cancer, and conclude by pointing out such means as may enable you in many cases to dispense with either one or the other.

The cases you now see are, I presume, chiefly in Hospital practice, where you are not likely to meet with the "cancer curers." I may as well, therefore, give you one or two instances of the sort of cases you may meet with in private. In the year 1853 I was sent for to see a gentleman well known in the higher ranks of London society. He had a malignant tumour beneath the angle of the left jaw, and his case is so excellent an example of the way in which people with cancer run about, first among the Surgeons and then to the cancer curers, that I will relate it at some length. This gentleman first complained of a sore in the inside of the left cheek. He fancied he had bitten it. Then it was thought that a decayed tooth had caused it, and the tooth was extracted. Then caustic was used. Still it did not get well, and Mr. Fergusson was consulted. He excised the diseased part; a good deal of bleeding followed, and stypties were used freely. Some time after swelling came on beneath the jaw, and Mr. Lawrence was consulted. He said the disease was malignant, advised attention to the general health, and a course of sarsaparilla. Then I was called in. The skin at that time was on the point of giving way. I employed congelation by Dr. Arnott's process. This did some temporary good. It gave relief to pain, and I felt pretty sure that it retarded the growth of the tumour. However, the patient was not content with that, and Dr. Marsden was sent for. He advised a very generous diet. Soon after this the skin gave way, and carrot poultices were used. Then came the turn of the cancer curers. Dr. Pattison was sent for, and had sense enough to see that he could do nothing, but made the most of the case, of course, by saying that if he had been called in at first he should certainly have effected a cure. Then a German empiric was heard of who was doing wonders somewhere on the Rhine, and he was written to. He offered to come over for five hundred pounds, and ultimately an arrangement was made to give him three hundred. He came, saw, and conquered—not the disease, but the patient. He applied a very strong caustic one Monday; on the Tuesday it had destroyed the coats of a large artery, which gave way, and the patient bled to death in a very few minutes.

Every one who has seen much practice in town could tell such stories as these, but one I have heard Dr. Jenner relate is most striking. He was called one morning, seven or eight years ago, to see a lady who was said to have fainted. He found a lady dead in bed, and a cancer curer just about to reapply a dressing upon the breast of the dead woman. This person was so ignorant of medicine that he did not know she was dead; he was horror-struck when Dr. Jenner told him so, and had just before assured the husband that his wife was going on well, and would soon be cured. The quack was not punished. The husband and friends were ashamed of having been duped, and they kept quiet.

Hume is not the first nor the only philosopher who has remarked how constantly mankind is deceived by the very same tricks played over and over again. "In spite of all warning, we see one generation after another, with their eyes wide open, walk into the same gulf of fraud, quackery, and imposture." This is especially true in relation to medicine. Large fortunes have been made by the sale of a single nostrum. Perkins sold thousands of his "tractors" at five guineas pair. Mesmer, and Deslon his pupil, magnetized many thousands of pounds into their pockets. The fortunes made by Mayersbach and Schweinfurth in London in the last century were splendid, and at the present day more than one empiric has the art of attracting crowds from every part of Europe, to some obscure German village. Some of these people may not do much absolute harm, but we are not without instances of victims to quackery in every class of life. Horace Walpole gives us a list of several distinguished sufferers. "Sir Robert Walpole," says Horace, "was killed by a lithotriptic medicine; Lord Bolingbroke by a man who pretended to cure him of cancer in the face; and Winnington died some time after, by the ignorance of a quack who physicked and bled him to death in a few days for a slight rheumatism." There is no man now in large practice who could not add to this list some victim of the quackish follies of the day; and it becomes our duty to inquire why the public are so apt to think favourably of those who profess to possess secret remedies for diseases which are considered by regularly educated members of the Medical Profession to be incurable.

Now there are various reasons for the success of empirics; but the principal reason is, that in many cases where honest men give no hope, the quacks promise health and life; and the patients, like drowning men, catch at every twig and shadow. Then there is the love of novelty, and the benevolent desire to promote anything which promises to relieve pain or save life; and an English feeling of giving fair play to everybody, and not allowing any class of men to exercise a monopoly of the healing art. Then self-love comes into play. People are apt to be led away by confident assertions; they espouse a scheme warmly, and say so much in its favour, that when the bubble bursts they find it difficult to confess their error. When the imposition is discovered, the partisan is ashamed of having been duped, and holds his tongue. Even those who have suffered both in health and pocket think it better, for the sake of their own reputation as sensible people, to keep quiet. Probably such reserve would be less frequent, if it were considered that others suffer from a perpetuation of the delusion, and the deceptions would be acknowledged as soon as discovered. This duty, however, is overlooked; for while actions for malpraxis are not unfrequent against Medical men, it is rare to find an empiric arraigned. Yet the late Lord Gardestone took the trouble to inquire for a number of persons who had actually attested marvellous cures, and found that more than two-thirds of the number "died very shortly after they had been cured;" and I shall show you presently that we are not without similar results of equally marvellous cures in our own day. I think this should teach us all a lesson. We have chosen the profession of Medicine. It is our duty, our business, to study how to cure disease; and we ought never to look upon any disease as incurable, never to give up any case as entirely hopeless; for "the extinction of hope is the extinction of endeavour." Let me impress upon you, then, the duty of looking upon diseases commonly considered incurable in a more hopeful spirit,—regarding them only as incurable because our art is imperfect, and of searching diligently for a remedy which may remove the imperfection. We may thus keep hope alive,—we may alleviate where we cannot cure, soothe where we cannot save; and even if the patients are not directly benefited, their indirect gain will be great if they be preserved from the snares of ignorant impostors.

There are some special reasons why, of all the different classes of empirics, the "cancer curers" should attract a large share of public attention. Cancer has been too generally treated and regarded by Medical men as incurable, and the frequency of the return of the disease after the removal of a cancerous tumour by the knife is confessed by all honest men. Then there is the natural fear of the knife; and, on the other hand, the bold assertions and confident promises of the cancer curer. These persons all tell the same story. They exaggerate the pain and danger attending excision; they endeavour to persuade the public, and even their patients, that the use of their caustics is not attended with much pain, and with no loss of blood. They call innocent tumours cancer. They conceal unsuccessful cases: so do those who are ashamed of having been imposed on; and Medical men will not incur the

charge of jealous rivalry by making them known. Lastly, they assert that, while relapse is the rule after excision, it is the exception after the removal by their caustics; and they have a theory, which looks plausible enough to the public, explaining why this should be: they say they remove the roots, which the knife does not.

This notion of the *roots* of cancers, leads me to say something about Plunket and Guy, cancer-curers of the past century, who adopted it—just as it has been adopted by two American Physicians, Dr. Pattison and Dr. Fell, who have treated cancers by secret remedies in London for some years past. The notion is, that their applications not only destroy the tumour itself, but penetrate, by a sort of intelligent power, or elective affinity, in certain directions, corresponding exactly with these supposed roots of the cancer—eating away or drawing out those roots, without affecting the sound flesh into which they are ingrafted. On removing such tumours they show filaments of hardened cellular tissue, or portions of subjacent muscle, keeping up the connexion; and on the tumours they preserve in bottles, they show similar prolongations, or shreds, hanging into the spirit in which the tumours are preserved. These are, in all probability, merely portions of the surrounding tissues which have been destroyed by the action of the caustic. Possibly these supposed roots may have given rise to the term "cancer,"—the crab holding firmly with its claws the prey it had grasped. However this may be, you can see at once how likely such reasoning is to affect the imagination of patients.

Plunket practised as a cancer-curer in London, in the early part of last century. He is said to have known little or nothing of surgery in general, and to have practised from the traditionary directions of his namesake, formerly an empiric in Ireland, who left the receipt for his medicine, with directions for its use, to Steevens's Hospital. Guy, who was a member of the "Corporation of Surgeons," purchased the secret of Plunket about 1754, and in his account of the medicine says it had been known by the name of "Plunket's Poultice," and had been used by Plunket and his ancestors for more than a century. A controversy took place between Guy and Gataker, and in the *Lloyd's Evening Post*, March 5th, 1760, old Plunket gives his own receipt, as follows:—

Crow's-foot, which grows in low ground, one handful,
Dog fennel, three sprigs, } well pounded.
Crude brimstone, three middling thimbles-full.

White arsenic, the same quantity. All incorporated well in a mortar, then made into small balls, the size of nutmegs, and dried in the sun.

Sir Charles Blicke, with whom Abernethy served his apprenticeship, used Plunket's caustic very much in the treatment of cancerous sores, and his pupils used to be employed in gathering ranunculus and dog fennel, and making them into the paste.

It is curious to remark how imitative even great discoverers may be. The escharotic effects of arsenic had been known to the Greek and Roman Physicians—they had not been forgotten in the Middle Ages. The mineral had been used for centuries in the removal of cancerous diseases. Plunket adds some crow's-foot and dog fennel to it, and becomes a great cancer-curer in London. The chloride of zinc is proved to be an excellent caustic, by Hancke, Canquoin, Alexander Ure, and others. They even use it to remove malignant growths. Dr. Fell adds some *Sanguinaria canadensis* to it, and four gentlemen of the very highest character and professional position, expressing no disapproval of the use of a secret remedy, and without trial of the unaided powers of the vegetable, publish a certificate on Dr. Fell's "mode of treatment," complimenting it as "ingenious, safe, and easy of application."

It was Guy's caustic, or rather the Plunket's paste, that killed Lord Bolingbroke, and many others were poisoned by the local use of arsenic; yet this did not prevent Lord Arundel from buying the receipt of the wife of a blacksmith, so ignorant that she could not sign her name, but a noted cancer-curer, named Elizabeth Fellow. This was long known as Lord Arundel's Cancer Cure. It was an arsenical powder, and a wash of corrosive sublimate, and no doubt killed a great number of poor women. However, like Plunket's paste, a great many cancerous and other tumours were removed entire by it; and Mr. Justamond, who was Surgeon to the Westminster Hospital some seventy or eighty years ago, tried them both very extensively, arriving at the conclusion that the advantage gained did not compensate for the risk incurred. It is curious to find how Mr. Justamond anticipated much that has been going on in London during the last three or four years by cancer-curers, and it may be worth while to read you rather a long extract from a pamphlet he published in 1780, giving an account of his experiments.

After describing various methods he had used without success, he mentions a case in which he resolved to attempt extirpation by the arsenical caustic. "My patient was extremely timorous, and would by no means be persuaded to submit to the operation by the knife. She had a very hard stubborn schirrhus in the right breast, just above the nipple, of the size of a small apple, and beyond this, a small indurated gland under the axilla. The arsenical preparation I used in this case was composed of one-third of antimony and two-thirds of white arsenic, fused together. This being reduced into impalpable powder, a few grains of it were mixed with as much powdered opium. But as the skin was entire, and as I knew the arsenic would not act through the cuticle, the day before this powder was applied I rubbed the whole surface of the gland gently with the lunar caustic. By this contrivance the cuticle was easily separated next day, when mixing a small quantity of the powder with part of the yelk of an egg, so as to bring it to the consistence of an ointment, I spread this upon a pledget, cut to the size of the gland, and applied it to the whole surface. The pain was very great for the first four-and-twenty hours, but after that subsided. I left this first dressing on for several days, when seeing it ready to drop off, I removed it, and found that all that part of the skin on which the caustic had been applied was cracking all round, and the tumour beginning to separate. In expectation of facilitating this separation, I made a few scarifications on the destroyed surface, and filled the crevices with more of the powder, applying over it a pledget of the same kind as the former. But this second application did not, as I imagine, produce any effect, for it caused no pain. I then waited a few days to observe what would happen. The separation began to take place more evidently at the edges, which now looked florid, though the tumour did not yet seem ready to come away. To hasten this event, I judged it proper to put some of the powder all round the separating edges, and as low down as it could be insinuated between the diseased gland and the sound skin. I soon found that this contrivance had its effect, for the pain it occasioned was more violent than that produced by the first dressing. I was, however, obliged to repeat the application of the powder to different parts of the edges at intervals, but never in so large a quantity as before. By this method the separation of the tumour was effected in little more than two months, and the gland came out as entire as a nut out of a shell, or as if it had been cleanly dissected with a knife. The small gland under the arm-pit I had put nothing to, thinking it would dissolve by the suppuration of the larger one, but in this I was mistaken. It still remained, but this circumstance did not prevent the wound made by the separation of the larger gland from healing very fast after it had come out." Mr. Justamond says he saw this patient a year and a half afterwards in perfect health. He explains the separation of the diseased gland from the surrounding parts by the action of the arsenic on the sound skin when deprived of its cuticle, "bringing on inflammation and suppuration in the cellular membrane all around and underneath the diseased gland, which is thus forced out entire, and unaffected by the caustic;" and he adds, that if any one wish to separate the whole gland at once, "he must extend the application all over the indurated part, after having deprived the surrounding skin of its cuticle, either by a blister, or by the method made use of by me in the above instance, which I think preferable, as being less irritating. Perhaps it may hereafter be found only necessary to make a circle round the whole tumour for the application of the arsenical caustic."

So you see the modern cancer-curers have not taught us anything new. They have not taught us how to remove cancer by caustics. They have not taught us to discard arsenic. We had done that long ago, except in those cases of small superficial malignant ulceration, in which, in a dilute form, it is still the best remedy known. They have not given us any new caustic, and it remains to be seen whether they can show that their caustics, as prepared and used by themselves, have any advantage over the knife. To settle this question we cannot do better than examine the results of the cases of Landolfi, Pattison, and Fell, as recorded by themselves.

Landolfi, a Neapolitan Physician, may be looked upon as the prince of the cancer-curers. He has been decorated with orders of knighthood by sovereign princes, has been alternately flattered and abused, and has made an immense fortune. He made no secret of his plan. "Landolfi's paste," as his caustic was called, was composed of equal parts of the chlorides of zinc, bromine, gold, and antimony, made into a paste with flour or liquorice powder. Sometimes he used the chloride of bromine alone, using it both externally and internally; and when the slough had been formed, he used lettuce poultices till it separated. There can be no doubt that Landolfi removed an immense number of cancerous tumours by his paste in Italy, Germany and France, and that healthy granulations sprung up, and firm cicatrices very often resulted. He used to assert that out of four thousand cases of cancer he had treated, the disease had not recurred in three thousand. This is what he *said*. He never offered anything like *proof* of the truth of this statement; and when his caustic was tried in the Hospitals of Vienna and Paris the conclusions arrived at were that it was decidedly inferior to the chloride of zinc. Landolfi went himself to Paris, and a number of patients were treated by him in the Salpétrière, under the inspection of a committee of Hospital Surgeons. Their report was published, and my colleague, Dr. Deville, has just favoured me with a copy. The conclusions are, that the chloride of bromine, which is the only peculiarity in Landolfi's treatment, is quite useless as an internal remedy; and that locally it only acts as a blister, raising the epidermis, and exposing the denuded part to the action of the chlorides of zinc and antimony; acting, you observe, just as the ranunculus did in Plunket's paste, the nitrate of silver as used by Justamond, or like any common blister. The committee reported that the pain produced by this caustic was excessive, and that it did not secure the patients from the danger of erysipelas or hæmorrhage. Landolfi does not appear to have been more successful in Germany than in France. In November, 1853, he was called to the reigning Duchess of Anhalt-Cothen to remove a cancer of the breast. In January, 1854, Dr. Brunn, a member of the Superior Medical Council of the Duchy, published a pamphlet on Landolfi and his method, in which he announced his success as complete; yet on the 13th of July, 1855, the Duchess died of a return of the cancer of which Landolfi had cured her. Other cases treated at Cothen and Munich died or relapsed. He treated Dr. Seyfert at Dresden, and he died. He treated a Prince of Prussia, and was decorated with the order of the Red Eagle; but here again *cure* meant *cicatrization;* for I have been assured that the disease was cancroid of the face, and that it has returned. Dr. Valentini of Berlin tried the method in 43 cases, and published an article in July, 1854, in its favour, but in July, 1855, only one year later, he wrote to say that it had entirely disappointed him. So at Vienna, in October, 1854, Dr. Weinberger published reports of 33 cases treated before him by Landolfi. One of the cases reported as cured relapsed while Dr. Weinberger was correcting his proof; and ten months later he wrote, that in cases of medullary cancer the disease "always returned, even before the cicatrization of the wound," and that the internal use of the chloride of bromine had no influence whatever in preventing relapse. Landolfi by ministerial authority *selected* six cases himself at the Vienna Hospital, and treated them under the observation of a Committee, yet he only cured one, and that was an innocent tumour, a partial hypertrophy of the mamma, for which he destroyed the whole breast quite unnecessarily, and produced a large unsound cicatrix. He wrote to the French Commission to say that the effects of the application of his caustic in France were in all respects similar to those he had obtained in Germany and Italy; and so we find them. Of nine cases of cancer of the breast treated by Landolfi himself at the Salpétrière two died; in four the disease was aggravated; and in the three in which cicatrization took place the disease reappeared. Not one of the nine was cured. He treated three cases of cancroid, and cured one. In a second the disease reappeared after cicatrization, and in the third it was much aggravated. So much for the three thousand cures of four thousand cases. Well may the French committee add that Landolfi's method "adds another to the illusions that so abound in the history of cancer."

Dr. Pattison, as you may be aware, some three, four, or five years ago, occupied much the same position in London that Dr. Fell does now. Both are Physicians with American diplomas, who have professed to cure cancer by secret remedies, who have treated a great many patients, and have published accounts of their treatment. The difference between them is, that Dr. Fell has at length made known the composition of the remedies he employs, while Dr. Pattison has not; although it is pretty generally believed, and not without ground, that the essential part of his preparations was the dried sulphate of zinc, which Dr. Simpson showed in the *Medical Times and Gazette* a few months ago was a most useful caustic. Dr. Pattison has not been heard of so much since the arrival of Dr. Fell. Indeed the disappearance of one and the advent of the other are supposed not to have been altogether without concert. Where Dr. Pattison may be now, I cannot say, but his publications remain; and I can tell you something about some of the cases he has treated. A report of one of these used to appear in the form of a declaration sworn before the provost of Glasgow, that the patient was cured by Dr. Pattison, after having been regarded by Mr. Syme of Edinburgh as hopeless. Mr. Syme informs me that the patient was a small farmer, who had a sore at the corner of the nose. Mr. Syme applied the chloride of zinc to it, but the man went to Dr. Pattison, and so far from having been cured by him "died in great misery after several journeys to London." Mr. Syme informs me that a case of cancer of the breast which had returned after operation, and which Dr. Pattison boasted he had cured, is not cured, but that the lady is dying; and that another lady, upon whom Mr. Syme declined to operate for cancer of the tongue, died under Dr. Pattison's care. These are cases which the public never hear of, but which really ought to be made known. In 1855 a book appeared, entitled "Cancer; its true Nature, Treatment and Cure. Illustrated by Cases. By John Pattison, M.D., 31, Lower Grosvenor-street." Most of these cases are given so indefinitely, as "Mrs. H. from Essex," "Mrs. J., aged 54," "Miss ——, age 27," "Mrs. A. of Hammersmith," "D. C. from Scotland," and so on, that it is impossible to find out how far the cures related are correct; but there is a clue to some of the cases, particularly to those treated at Glasgow; and I wrote to Dr. Macleod, a most able Surgeon of Glasgow, to ask him to make inquiries about them. Here is his reply:—

"The following is the result of the cases treated by Dr. Pattison in this neighbourhood, of which I have been able to find out the particulars:—

"1. David Wilson, nursery gardener, &c.—This was a case of cutaneous cancer of the cheek—the sore being about the size of a sixpence. Dr. Laurie applied the actual cautery twice; after which it healed for a short time, and again broke out. Pattison treated him, in 1852, for six weeks, during most of which time he was put to great agony—the caustic being applied, at one time, continuously for 8 days. He was pressed to submit to it, in order to see 'whether a caustic which had been so effectual in America, would act in the same way in this country.' The sore healed up after this, and has remained well till lately, when the old lancinating pain has returned, the hardness (which had never left it) has increased, and the inner end of the cicatrix has begun again to ulcerate. The man himself says he is sure he is going to have a return of his disease, and acknowledges that 'the cure' has entirely failed.

"2. Miss M., of 28, Parson-street.—It is eight years since she first observed a small pimple on her right cheek, which remained long small and painless. It was hard, but quite superficial. About two years after its first appearance, it broke and 'wept.' It was many times healed by Dr. Ritchie, by simple means. Having again appeared, she put herself, four years ago, under Dr. Pattison's care. It was then 'no larger than a herring scale, and felt, when she bent down, as if it would drop out.' Dr. Laurie had seen her just before this, and had told her to have two decayed teeth drawn. This she did, but hearing immediately afterwards of Dr. Pattison, she did not wait to see the result of Dr. Laurie's recommendation, but put herself at once under the charge of Dr. P., who told her it was lupus. The sore had all along remained quite small and superficial—had not spread, and caused hardly any uneasiness. She was in London, under Dr. P., for seven weeks, and was apparently cured. Caustics were very frequently applied, and she was told that 'a very large bad lump had been took away.' She came down to Glasgow, and in fifteen months afterwards she was as bad as ever. She returned to London, and was 17 weeks under Pattison, who 'again took away a great mass of

disease.' The sore caused by the caustic healed, and there has, up to this time, been no return. The cicatrix on the right cheek is as large as a florin, white and sunk. There is no hardness, or any breach of surface. Dr. Ritchie says that the sore was 'suspicious' when under his care, but he would not have pronounced it 'malignant.' It was very superficial; and the description given by the girl herself, that it was a 'weeping pimple,' seems the best which could be given of it.

"3. Mr. Lauder, foreman in a manufactory here, I can hear nothing of.

"4. Mr. C., auctioneer, was a case similar to that of David Wilson. He was twice operated on by Dr. Laurie, and on the re-appearance of the disease, fearing another operation, he went to Pattison. He was twice under this gentleman's care—once in 1853 for three weeks, and again in 1855 for two months. The disease, which was very limited. in a great measure though never completely disappeared after his first visit to London, but in a few months after it again came back worse than ever. He was at that time put to so much pain, that 'he thought he would have died.' In 1855 he was again treated by Pattison; the disease knew no amendment, and it is now spreading, though slowly, and he is about to submit himself to more legitimate interference. This patient has dissuaded many others from going to Pattison.

"5. Miss P., of Glasgow, had been three times operated on with the knife. Had the disease—a cancer of the breast—temporarily removed by Pattison, in 1853. It returned in the spring of 1856, and has been now eight months under Pattison's treatment, where she still remains, 'daily getting worse,' (so say her friends.)

"6. A sister of this lady's lately died under Pattison's care; but from what I can learn, she was in so advanced a stage of cancer of the tongue when he saw her, that her death by no proceeding could have been long delayed.

"7. Mr. R., lupus of the nose, said to have been treated by Mr. Lyon, of Glasgow. Mr. Lyon knows nothing of this case, nor can I hear anything of it.

"8. Mrs. W.—'Ulcer of the leg, of five years' standing; attended by Dr. Gairdner, of Glasgow, cured by Pattison.'

"This was a common varicose ulcer of the leg, for which Dr. Gairdner could not persuade the patient to lie up for a day. She put herself under Pattison for some months, in London, and followed all his instructions, of which rest was the chief. She came home well, and remained so for a time. The ulcer again appeared when she became pregnant, and it is again nearly as bad as when she was under Pattison."

I am sure, gentlemen, I need not trouble you more with Dr. Pattison's cures. I have made inquiries myself about others, and I have only found *one* in which the cure was permanent, and that was a case of a small superficial sore on the face, possibly malignant, possibly not.

I do not mean to say much about Dr. Fell. His position is somewhat peculiar; for though he used a secret remedy, he was very open in exhibiting its effects to Medical men, and he has lately made known its composition, in compliance with an agreement entered into with the Surgeons of the Middlesex Hospital, in a book he has recently published. In his preface he talks of the "gratitude of a multitude of cured patients;" but, as the treatment of the earliest case he has recorded as treated in England was commenced July, 1855, and the lady died with pulmonary complication in the following April, and the other cases are of much later date, it is obviously absurd to talk of *cures*, when only a few months have elapsed after cicatrization. I know of cases in which the disease has returned after removal by Dr. Fell himself, and that in a much shorter period than two years; and, looking upon the essential part of his treatment to be the local use of chloride of zinc, it appears to be most unlikely that the results will differ from those obtained by Canquoin and others by the use of the same caustic. The report of the Surgeons of the Middlesex Hospital was drawn up within two months after the treatment was commenced there. I may tell you that Dr. Fell has not published all his formulæ in his book. At the Middlesex Hospital he uses an ointment containing snuff and acetate of copper, and another made by boiling stramonium leaves in lard; but the chloride of zinc is the caustic by which the tumour is destroyed; the sanguinaria and cochineal added to it are probably of nearly equal efficacy, and the after-dressings of comparatively little importance.

All this leads to the very important question of the relative advantages of the knife and caustics in the treatment of cancer. The advocates of caustics say that when the morbid growth is removed by the knife, if it be really cancer, there is almost certain to be a recurrence of the disease within two years, either in the cicatrix or in some other part of the body; that the disease makes more rapid progress than when the patient is left alone, and therefore that he is in a worse position than before. They say, further, that it is often impossible to remove every particle of diseased tissue with the knife; and that the operation itself is sometimes fatal, either immediately from shock, or indirectly from pyæmia or exhaustion.

On the other hand, the opponents of caustics say, that no caustic can do more than the knife towards removing the cancerous diathesis. They admit that the morbid local growth can be removed, but they assert that the patient is not in a better position, frequently in a worse position, than if the knife had been used. Under the influence of chloroform, the tumour may be removed in a few moments without suffering to the patient, and every portion of diseased tissue can be removed if proper care be taken; while the action of caustic is very slow, often excessively painful, and is sometimes apt to extend beyond the diseased to the healthy surrounding structures. They add, that during the operation of the caustic the patient is not free from the danger of hæmorrhage, erysipelas, or pyæmia, and that the general health is very apt to suffer from the long-continued pain and local irritation.

Now I am disposed to look upon all these arguments as quite secondary to the great question, which mode of removing the tumour is most likely to be followed by relapse. The advantages and disadvantages of the two methods are pretty equally balanced in other respects; and I apprehend we shall find them, even in this respect, also pretty equal. Statistics collected with a good deal of care show that about 8 cases out of every 10 operated on by the knife return within two years. Dr. Fell says that only 3 out of 10 treated by him return within the same period. One good effect of the trial given to his treatment at the Middlesex Hospital will be that the truth of this statement will be tested. At present you must take it for what it is worth. Landolfi said something of the same kind, yet I have given you the results he obtained at the Salpétrière. Pattison harped on the same string, and I have shown you how far he succeeded in preventing relapse. As to Plunket and Guy, and those who used arsenic, I need only remind you of the fact that their remedies have fallen into disuse, although they were employed long enough to establish their reputation all over the world, had they really possessed the powers attributed to them of curing cancer.

But you may say this is not a cheering prospect. If neither the knife nor caustics are to be trusted in,—if the chances are five to one in favour of a return of the disease, or a reappearance in some other part of the body within two years after we remove a cancerous tumour from any part of the body by either of these methods,—if Surgeons and cancer-curers are equally unsuccessful—what are we to do?

In attempting to reply to this, let me give you the rule at which I believe our best and most experienced Surgeons have arrived as to the use of the knife. It is, not to use it in the early stages of cancer,—not to use it unless the cancer is actually ulcerated, or growing so fast that the skin is about to give way. In such cases, especially where an open cancer gives great pain, and is wearing away the patient by bleeding or profuse fetid discharge, the knife is used in the hope of relieving suffering, and prolonging, not saving life. In some other cases, where a cancer causes great mental anxiety to a patient, you may remove it at her earnest entreaty, after explaining fairly the danger of relapse. I should speak here of the knife and caustics in the same terms, as in many cases it will not much signify which you select. In some cases, where the situation of the growth is such that the knife cannot be used safely, caustics are decidedly preferable. In others, again, where time is a great object, you would choose the knife. It is sometimes a good rule to leave the choice to the patient, representing fairly the advantages and disadvantages of the two methods. If you decide upon using caustic, I think all the evidence before us goes to prove the chloride of zinc to be the most effectual and safest yet employed; that it is a matter of great indifference whether it is employed as a paste or in solution; but that its action is considerably hastened by scoring through the slough, as Justamond did, down to the living tissues beneath, so that they are not protected by the slough from the action of the caustic. This scoring is not

so necessary when the chloride is used in solution as when it is used as paste, after destroying the skin by nitric acid; and it is not at all necessary, if you use a pair of galvanic plates as your caustic. If you place a piece of zinc on any raw surface, and a piece of silver near it, connecting the two by a silver wire, the part covered by the zinc is destroyed very rapidly, and the slough formed is a very soft one, which is easily sponged away. I saw a case of cancer of the breast in a lady in 1854, with Dr. Lawrance, of Connaught-square, in which we decided, on consultation, to adopt this method, and Dr. Lawrance carried it out most effectually. I should not be at all surprised to hear that the next great empiric who appears in London will profess to cure cancer by galvanism.

Looking, therefore, upon both the knife and causties only as the means of removing cancerous growths under certain exceptional conditions, what are we to do in the early non-ulcerated stages of cancer? This opens a very wide subject, which it is quite impossible to treat in a single lecture; but I must point out to you that we can do a great deal more towards arresting, even curing cancer, than is generally believed,—that our art is not nearly so powerless as charlatans assert. Growths, with all the characters of cancer, have occasionally disappeared under the influence of remedies; others have remained completely dormant for many years, without affecting the health or shortening the life of the individual; and it is absurd to say that the disease was not cancerous in such cases because the patient recovered, or lived to old age unaffected by the local condition.

In the first place, in the treatment of cancer, the hygienic measures I have often spoken of as so necessary in the treatment of all chronic diseases, are of paramount importance. Plenty of good wholesome food, a well-drained, well-ventilated house, pure country air, extreme cleanliness of person and clothing, sufficient exercise, clothing which exerts no injurious pressure on the diseased part, with mental occupation and amusement, will do a great deal towards the formation of healthy blood, the deposit of healthy tissues from it, and the removal of effete matter or formations of a low aplastic character. Ordinary medical treatment cautiously adopted may assist the hygienic treatment very materially. Deficient action of skin, kidneys, or digestive organs may be corrected. Alkalies given with or after meals often relieve a kind of digestive derangement common to cancerous patients. Hence the use of Vichy water and carbonate of soda. Pain may be alleviated by opiates or hemlock. Some of the preparations of iron often act admirably in improving the general health. Well-marked cancerous tumours have diminished in size and become quite dormant under the use of iodine in combination with iron; and the iodide of arsenic, in doses of one-sixteenth to one-twelfth of a grain twice a day, has been used with excellent effect since it was first recommended by Dr. A. T. Thompson and Dr. Walshe. The remedy, however, which I have found most useful is the bromide of potassium with cod-liver oil. Given in doses of five to ten grains of the bromide, with one, two, or three drachms of the oil, three times a-day, the effect upon the local tumour and the general health is really remarkable. The pain very speedily diminishes. There is, first, a cessation in the growth of the tumour, and then a process of shrinking goes on, while adherence to the surrounding parts is lessened, and a tumour which was firmly united to the surrounding parts becomes moveable, detached as it were, and is felt like a hard, moveable, senseless ball beneath the skin. The last cure for cancer advertised in London is the inhalation of oxygen; and a Dr. Birch has published a pamphlet about it in connexion with an apparatus sold by a firm in Regent-street. This, if it is not likely to do much good, can hardly do harm.

As to external remedies which may be looked on as curative, all attempts to affect the nutrition of the part by the application of leeches or ligature of nutrient arteries, must be abandoned as useless. Friction, percussion, and palpation, so much used of late by certain *rubbers* of Edinburgh and Brighton, with the hope of procuring absorption, are complete failures. Electricity and galvanism have been tried, but the results do not say much for their efficacy. The local means which really have some good effect in cancerous tumours are preparations of lead, iodine, and bromia. Lead in the form of plaster or embrocation is a most soothing application. I have seen it used very largely at the Cancer Hospital in both forms and with very excellent results. The embrocation in common use there, consisting of equal parts of the liquor plumbi, almond oil, diluted acetic acid and water, is a really useful application, allaying pain, and apparently hastening the absorption of the tissues around the tumour, indurated by inflammatory infiltration. Frictions of solutions of iodide of lead or iodide of potassium in glycerine without producing any irritation of the skin appear to be active promoters of absorption. The iodide of lead was recommended long ago by Dr. Walshe, and is much used now by Dr. Fell. The solution of bromide of potassium in glycerine appears to be even more efficacious, but on this point I do not like to speak confidently without more extended experience.

Dr. Arnott's freezing process is really of great service. I have shown you how to apply this on a former occasion, so that I need only say now that it is a remedy of very great value in the treatment of cancer, that it allays pain, checks growth, and has reduced many large adherent tumours to a small, moveable, indolent condition.

Then mechanical treatment is often very useful in non-ulcerated cancer. It has long been believed that the nutrition of any part of the body might be lowered, and absorption of any product of disease promoted, by methodical compression. Bayle first recorded 12 cases of cancer as cured by compression, out of 19. It was tried at the Middlesex Hospital, and Sir Charles Bell reported favourably upon it so far as to the power of alleviating pain. Mr. Travers has known tumours "gradually reduced, and at length absorbed, by equal and persevering compression." Recamier, out of 100 cases, reported 30 as *cured* by compression alone, and 21 considerably relieved. Bayle, as the result of 127 cases, gives 71 cured, 26 improved, and 30 failures. Some of these cases were probably not truly cancerous, but others undoubtedly were, and in some the stage of ulceration had commenced. From what I have seen myself I can quite believe that these statements of the good effects of compression are not exaggerated. But it must be properly applied. The plan of bandaging the mamma and shoulder is very objectionable, as it interferes with the free motions of the arm and chest, so necessary to the general well-being of the patient. As a means of producing equal constant pressure, exact in degree and easily moderated or increased, nothing equals the air-truss invented by Dr. Neil Arnott. An air-cushion, supported by a shield, is adapted to the diseased part, while a spring supported by a belt is arranged to act on the cushion in such a manner that any desirable amount of pressure can be kept up without interfering in the least with the free motions of the chest. Applied at first so as merely to support the part, and then to exercise gradually increasing pressure upon it, the results are very remarkable. The pain very soon ceases, the swelling in the surrounding parts diminishes and disappears, the large tumour splits up into several smaller divisions, and in some cases entirely disappears, not a trace of any tumour or induration remaining, while in other cases the remaining swelling is quite passive, painless, and innocuous. I saw a lady a few weeks ago with a small tumour like a walnut in her breast, quite harmless and not causing the least anxiety, which I saw nine years ago under this compression treatment, and it was then to all appearance a large cancerous tumour, on the point of ulcerating. I have not the least doubt that if the tumour in that case had been removed, either by the knife or by caustic, the patient would have been dead seven or eight years ago.

When ulceration has taken place, there are a number of local applications which are of great use. Supposing you have decided not to use either the knife or caustics, your object is to allay pain, arrest bleeding, destroy the fetor of the discharge, until spontaneous separation of the cancer takes place, and then to promote healthy granulation and cicatrization. In some cases of open cancer Dr. Arnott's freezing process acts admirably. It may cause pain for a few minutes, but it gives great alleviation for several days afterwards, and sometimes it destroys a large portion of a morbid growth as effectually as any caustic. This occurred in a case I saw lately with Dr. Brinton. The case was a most unpromising one, in a lady from the country. One breast had been removed, the disease had recurred in the cicatrix, and the subjacent costal cartilages were implicated. There was a large flabby convex growth, which we agreed to congeal. This was done by a most intelligent practitioner in the country, and I hear from him that three-fourths of this growth were destroyed, leaving a small, concave, granulating

sore. If you adopt this plan, you must protect the raw surface from the irritant action of the salt by a piece of gold-beaters' skin.

The bleeding which takes place from the surface of an ulcerated cancer can always be checked by the perchloride of iron. I always keep this by me, as it is prepared in Paris at the specific gravity 45° Beaume. A piece of lint, wet with this solution, will instantly stop any ordinary bleeding; but at this strength, or even at 30°, it acts as a caustic, so that, except in cases of very free bleeding, it should be kept at hand of the strength of 15°, so that the patient or her nurse may apply it. The strength of 30° is that usually employed to coagulate the blood in nævi and varices, and I now show you the remains of a cancerous tumour which has been acted on by this solution. See how friable it is, like dry rotten leather. About five months ago I injected some of this solution into an encephaloid tumour growing from the ilium. It was then as large as my fist, and growing rapidly. I injected it by four punctures, and the result was immediate hardening and subsequent shrinking. I saw the man a few days ago, walking about in very fair health. I do not wish to say much more about him at present, than that I feel certain his life has been prolonged. I am making other trials with the perchloride of iron, and Dr. Marsden has begun to use it at the Cancer Hospital, but I do not wish to recommend it further now, than as a means of stopping bleeding.

Dr. Marsden thinks very highly of carrot poultices. Their application is rather painful, but they certainly arrest fetor, and seem to hasten the separation of the diseased part. They are said to have been introduced into use in 1766 by Sultzer, and they have certainly maintained their reputation longer than most of the remedies for cancer.

If after a cancerous tumour has separated you have an indolent granulating surface covered with an unhealthy fetid discharge, a lotion of chlorate of potass is often very useful, of the strength of five to ten grains to the ounce of water. Mr. Weedon Cooke adds a little hydrochloric acid to this, and he believes with advantage.

In any of the stages of ulcerated cancer, when there is much pain, you may use some sedative ointment spread on cotton wool. A little morphia with lard answers as well as anything, but if you like to try other sedatives there is no objection to stramonium or tobacco ointment, or hemlock or lettuce poultices. However, you will generally find pain allayed more effectually by opium given internally than by any local application, and of all the preparations of opium I think the one which can be continued for the longest time, and causes the least derangement to the stomach, is the solution of bimeconate of morphia, as prepared by Mr. Squire.

In cases of cancroid of the neck of the uterus, the epithelioma uteri, a disease very often seen at the Samaritan Hospital, Dr. Simpson's paste of dried sulphate of zinc and glycerice answers admirably. You may apply it freely without any danger of injuring any part of the vagina protected by its epithelium, and it completely destroys the morbid growth. Here is a specimen of the hard white slough it produces. I have seen the diseased part come away entire, like the shell of a walnut from the nut, leaving a healthy granulating surface below, which has cicatrised very rapidly; and I feel certain that in all cases of malignant growths about the female genital organs we shall find the sulphate of zinc a most safe and effectual mode of destroying them.

This, gentlemen, is necessarily a very imperfect sketch of a most important subject, and in conclusion I can only urge upon you the necessity, while you are doing all that you can to prolong the life and alleviate the distress of your patients with cancer, of never giving up the hope of discovering a cure. We have found a specific for ague, we have found a specific for itch, we can certainly cure some forms of syphilis by iodide of potassium, and others by mercury, we can prevent small-pox by vaccination. Let us hope that the day may come when we shall possess equal power over those mysterious aberrations in the processes of nutrition and decay which lead to the deposits or formations known as tubercle and cancer. But should this hope prove fallacious, or be regarded as Utopian, I must maintain that, even with our present knowledge, we have no reason to fear a comparison between what we can do by fair and open means, and what can be really done, or has ever been done, by any cancer-curer or any secret remedy.

ORIGINAL COMMUNICATIONS.

ON THE REMOVAL OF THE

CUBOID BONE IN THE TREATMENT OF SEVERE TALIPES VARUS.

By EDWARD F. LONSDALE,
Surgeon to the Royal Orthopædic Hospital.

The great opportunities which all Hospitals afford to the Medical Officers connected with them, of obtaining experience in their profession, very properly give weight to any opinion that they may advance, either in private consultations or in their published writings; and this remark is more particularly applicable when such Hospitals are founded for a special class of diseases, owing to the vast number of cases that are thus brought together, and from which a corresponding amount of experience ought to be obtained; and for this reason the greatest care should be taken that any opinions founded thereon should be correct and free from error.

On this account I am induced to offer some remarks on Mr. Brodhurst's paper published in the last number of your Journal, on "The Removal of the Cuboid Bone in the Treatment of Severe Varus," feeling that he has advanced opinions that are not borne out by the experience of others who have had equal and greater opportunities of observing the particular kind of deformity to which he refers. It is not my intention to enter into the case treated by Mr. Solly, since it has already been discussed, and the discussion put into print, but I shall consider one or two of the opinions advanced by Mr. Brodhurst on the question generally, which I cannot consent to as being borne out by the experience of the Orthopædic Hospital with which I, as well as he, am connected; and am, therefore, unwilling that they should have any importance attached to them which they do not deserve.

Mr. Brodhurst says that the scaphoid bone offers the greatest obstacle in the treatment of varus; "but rotation of the scaphoid bone is in the first instance to be overcome. This having been accomplished, the *cuboid bone no longer presents itself as a serious obstacle* to the restoration of the normal directions of the foot, but extension and abduction of the foot may be made effectively if it be not attempted to overcome distortion too hastily." Now my own experience is totally opposed to this assertion, for in all cases (though it takes a longer time the more rigid the case) the scaphoid bone can be sufficiently brought out of its abnormal position, and the foot be everted to an extent that the great toe lies in a line straight with the tibia, before the *real difficulty* in the treatment commences: and this can be so readily done that it shows at once that the scaphoid bone cannot offer so great an obstacle as he supposes it to do. In all the cases that I have seen, this eversion of the foot can be effected at a comparatively early stage, and is certainly far from the most difficult part of the treatment. The real difficulty in the treatment of varus in an advanced age and sometimes in children is, not in the altered position of the scaphoid bone, but after this bone has been brought out of its state of "rotation," (a term used by Mr. Brodhurst,) owing to the wedged and *doubled-in* condition of the cuboid and metatarsal bones of the little and fourth toes. This is so plain a fact to any one who has treated many cases of varus, that I am surprised Mr. Brodhurst should be ignorant of it, for he says, "But the scaphoid bone having been replaced, the remainder of the distortion is with less difficulty overcome, and the *cuboid bone is no longer the obstacle to the removal of distortion* that it appeared to be prior to the replacement of the scaphoid." (The italics are my own.) Again he says upon the same point, "For, without it is accomplished (the replacement of the scaphoid), the inner edge of the foot can never be brought perfectly in contact with the ground." Now the reason why the inner edge of the foot cannot be brought to the ground is dependent on the position of the cuboid and metatarsal bones of the little toe, which being still turned inwards, throw the foot on its outer edge, and will continue to do so as long as they remain pressed inwards towards the sole, and to evert or to *unfold these two bones is the most tedious and lengthened part of the treatment.* I have cases at the present time under my care well illustrating this statement, in which the inner edge of the foot is everted, the great toe being in a line with the tibia, showing that the scaphoid bone has been replaced, but

in which the treatment is far from complete, owing to the difficulty of bringing the cuboid and metatarsal bones of the little toe into their natural position. This difficulty, however, can be overcome by mechanical means, and this is the best argument against the necessity for removing the bone. I think I am justified in making these observations (though opposed to my own colleague) not only to put before the Profession a true explanation of the difficulties met with in treating a very important branch of surgery, (which the treatment of deformities has now become,) but also to avoid falling into errors sanctioned by the authority of one of the Medical Officers connected with a very useful Institution, specially founded for the treatment of these cases. I have not referred to other important points in the treatment of this deformity, my object being only to state my reasons for opposing the views advanced upon the one particular portion of the subject in question.

CASE OF BRONZED SKIN, AND DISEASE OF SUPRA-RENAL CAPSULES.

By CHARLES COTTON, M.D., F.R.C.S.,
Senior Surgeon to the West Norfolk and Lynn Infirmary.

History.—Mr. Sayle, Surgeon, of Lynn, in the commencement of 1847, was the subject of right lumbar abscess, when he was treated by Dr. Ingle and Dr. Cotton, and afterwards by the latter and Mr. H. C. Johnson, of London. He was in a most precarious state of health, but by the end of May he was enabled to leave for Downham, his native neighbourhood, where he remained six weeks, when he left for Margate, seeing *en route* Sir B. C. Brodie. Here he resided until September, receiving the friendly and professional attentions of Mr. Yates Hunter, and drinking with advantage Margate ale. He then returned to Lynn, "fat, stout, and in good health," shunning, however, any walking exercise for the next eight or nine months, the lumbar abscess continuing to discharge during that time, when he frequently denied the existence of bone disease from "the absence of stink." From this period the abscess became soundly healed, and his health so established that, in addition to his professional duties, he joined warmly and actively in public business, and for three or four seasons entered into the pleasures of shooting, being a good shot. This amusement he discontinued for private reasons, always afterwards declaring his regret for having done so, and his conviction that he should not have again fallen ill had he continued active exercise.

In November, 1854, a sudden and marked change in the complexion was observed; this had been preceded by occasional periods of distressing *ennui* and constipation, although in general he was extremely hearty, and in his usual light-hearted spirits. The change in the aspect daily became more striking; and Mrs. Sayle, who did not at first notice the remarks of friends, states that afterwards "she met her husband accidentally, and could scarcely recognise him, he was so altered." Now followed violent palpitations, distressing periods of depression, and sense of sinking, troublesome vomitings and "dreadful hiccup," numbness of fingers, etc. which continued until March, 1855, when, declining to make a gentle sea tour to the Channel Islands, as advised by Dr. Cotton, he left for Portsmouth, consulting on his way Dr. Bence Jones. From Portsmouth, certainly not worse, but dead with *ennui*, he returned after a short stay again to Lynn, where he remained until the following Christmas, "ailing, and occasionally very ill," when he became again worse, and caused considerable renewed anxiety from this time until April, 1856. He then varied, and in somewhat better health started for Hastings, consulting Dr. Bence Jones and Dr. Watson jointly on passing through London. Here he resided for upwards of two months, wonderfully regaining his health, having had but one attack of his "frightfully depressing symptoms," and that his worst, during the first week's residence.

After leaving Hastings, a tour of a few weeks was made among his friends, "who were astonished at observing him, in spite of his singular look," in so good a state of health. He then returned to Lynn quite hearty, eating principally meat, and continuing to drink about three pints daily of Margate ale, to which he always insisted he was indebted for his life. Again he resumed his Professional duties, and when not occupied with public business, of which he was passionately fond, he amused himself with gardening, or genealogical researches, on which subject he had announced a work in course of publication. At this period he was selected coroner for the West Norfolk district, after a severe and protracted opposition from a legal candidate. In spite of the pinched look and peculiarly bronzed countenance, Mr. Sayle lately had quite relieved his relatives of further anxiety on the score of his ultimate recovery, although at times he had a breathless manner of address, and suffered occasionally from annoying hiccup and fits of depression, which were always aggravated when following any great exertion in public business. He was himself in full confidence, and used to remark upon his intention to see Dr. Addison when he got quite well, having hitherto declined doing so from his dislike of being made a show of. His late ailments he attributed to a faulty heart, having previously blamed the liver. The original lumbar abscess was considered to have arisen from some mischief to the fascia, consequent on wrestling, or other active exertion.

A fortnight prior to his death Mr. Sayle took a severe cold, on returning a long distance from an inquest, which he held in the neighbourhood of Wisbech. From this, however, though looking very haggard and ill, he was recovering, when he again exposed himself, contrary to his habit, in an open vehicle, and presided at another inquest five miles distant from Lynn, and, on returning, performed some trifling operations at the Hospital, leaving others, owing to feeling suddenly "shivering and unwell." This was on the 3rd of April, when he was attended by Mr. Conleher until the 5th, when Dr. Cotton was also consulted, and found him under very discouraging prospects,—prostration and frequent sighing; pulse weak, 120 to 130; low fever. He complained of his throat and windpipe, and "feared this time all was over." He had a hoarse, painful, occasional cough, and had expectorated a quantity of greenish gelatinous phlegm, which adhered to the vessel. "His lungs were all right, he was sure;" and truly no mischief could be detected in those organs by the most careful examination. He had been relying principally on a simple infusion of bark, which suited without causing sickness. This it was arranged should be continued, together with Dover's powders and blue pill at bed-time, and the frequent sucking down of a portion of powdered nitre and lump-sugar. Very hot applications of water were directed to be used to the region of the throat, and the vapour of it inhaled as much as possible. On the 6th he was again all hope, and expressed himself much more comfortable, deglutition, speaking, and coughing being less painful; the expectoration was easier, less tenacious, more abundant, and mixed with air-bubbles. The stethoscope indicated a mucous râle, confined to the larynx and trachea. The fauces were of a dirty pink hue. Dreading sickness, and having his old hiccup, he declined the suggestion to persevere with the nitre and sugar, but did not object to the chlorate of potass, which was now added to the bark. At his own desire, a mustard plaster was applied to the throat. On the morning of the 7th matters were evidently worse. The intellect clear, slight wandering when dosing. He had been taking wine to mitigate the sense of extreme prostration, and was very desponding. In the afternoon of the same day he sent again for Dr. Cotton, whose professional opinion in moments of severe illness he always sought; and, on learning that the thread of life was about to break, he resignedly spoke of his religious observances, and his hope to go to heaven, and expressed his desire to receive the sacrament; and having done so, at the hands of his friend the Rev. Bagge Scott, he shortly and quietly sunk.

Examination, restricted to an inspection of the Kidneys, seventy-two hours after Death.—Very fair general condition, considering long ill-health. The surface of the body of a dusky yellowish bronze tinge, darker on the face, neck, chest, front of thighs, and back of arms and hands, and interspersed with several dark brown freckles and blackish mole-spots. The scrotum, etc., and areola tissue around the breast nipples were of a deep sooty colour. A prominent cicatrix near to the spine between the rib and iliac crest was observed in the right loin. On cutting through the abdominal walls, fat, fully an inch in thickness, was found, the muscular tissues being thin, pale, and flabby. The *liver*, rather large and friable in structure, was unusually pale, excepting its floating margins, which were of a leaden hue. The *pancreas* was thought larger than usual. The *heart* (drawn through an aperture made in the diaphragm) was pronounced to be in

every respect healthy. The *kidneys*, inspected *in situ*, showed both supra-renal capsules very massive, and firmly adherent. On removing the right, with its corresponding kidney, a portion of the base of the liver, with which it was connected, was torn off, the adhesions posteriorly at the seat of former abscess were very firm; a whitish, fibrous-looking, obliterated sinus was afterwards found proceeding upwards from the cicatrix to the site of the structures in which the supra-renal body was embedded. Both kidneys were large, their fibrous capsules firmly adherent superiorly; they were encased in strong cellular fatty tissue. A section showed the renal texture of a purplish red colour, the cortical structure in excess, and line of separation with the tubular somewhat indistinct. On cutting through the *right supra-renal mass*, the surface of the capsular body was observed of a dark pinkish colour, and apparently "puckered" at different points; throughout it was studded with encysted collections of yellow tubercular matter of cheesy consistence, varying from a millet-seed in size to a large horsebean. Some pus, on pressure, could be squeezed out of the smaller ones; but the cysts, with their contents, were apparently in a quiescent state, and could easily be turned out. The *left supra-renal capsular body* was larger than the right, and more regular and plump in outline; a section gave nearly similar appearances; though, from its more vividly pink colour and less firm cystic contents, the changes were considered of more recent origin. Mr. Coulcher subsequently placed some of the cheesy-looking matter under the microscope, and reported it as "greatly resembling tubercle," consisting principally of granular matter, broken-up cells, perfect cells the size of pus globules, and a few fat globules."

King's Lynn, May, 1857.

MERCURY IN THE LIVER OF WORKERS IN MIRROR-MANUFACTORIES,

AN EXPERIMENTAL EVIDENCE OF LOCALIZATION OF METALLIC POISONS.

By ROBERT BURTON,
Chemical Student at the University of Erlangen.

It is a well-known fact, that in certain cases of metallic poisoning the liver is an organ whose tissue appears to exercise a peculiar attraction for many metals, whether introduced into the system by the alimentary organs, the skin, or the lungs; and the metallic presence has been detected in this organ by analysis after death.

This holds true in a remarkable manner with regard to quicksilver, which has thus been repeatedly discovered in cases of mercurial poisoning.

It is further interesting to know that those whose labours in the quicksilver mines, and some of the arts (*e. g.* silvering mirrors) expose them to the action of mercurial vapours, are the subjects of chronic poisoning by this metal; and in such cases a localization of its particles in the system, and more particularly in the liver, takes place.

An interesting case of this nature was published a few years ago, by Dr. E. von Gorup Besanez, present Professor of Chemistry in the University of Erlangen (in "Jenaische Annalen für Physiologie und Medecine," tom. ii. p. 241).

In this case Dr. Von Gorup Besanez found distinct traces of quicksilver in the liver of a woman who had for sixteen years worked in a mirror-manufactory, and was then attacked with symptoms of hydrargyrosis, of which she died in one year. Although during the whole year previous to her death this woman was entirely removed from the mercurial influence, nevertheless the metal was demonstrated with certainty in the liver after death, thus experimentally proving, that, corresponding to the remarkable avidity which the liver shows for mercury, there exists as remarkable a localization of the metal in the tissues of that organ—in other words, that the liver, with a maximum of absorbent power, seems to possess only a minimum of excernent power in regard to mercury.

Considered in the light of its Medico-legal bearing, the question, "How long after the administration of mercury, or other metallic poison, it may be found in the liver," becomes evidently one of the highest importance, and, as such, demands publicity for every fact which can be brought to bear upon the elucidation of this subject. I therefore offer no apology for publishing the following:

Dr. Froumüller, Hospital Surgeon at Fürth, near Nüremberg, forwarded lately to Professor von Gorup Besanez the liver of a woman who had worked in a mirror manufactory to within a few weeks of her death, and the investigations for the discovery of mercury in this liver, entrusted to me by the Professor, were made under his direction in the laboratory at Erlangen, the most scrupulous care in securing the perfect purity of the re-agents and cleanliness of the apparatus having been observed.

Following the method of Fresenius and Babo, the liver was cut into small pieces, and boiled in a water-bath with hydrochloric acid and chlorate of potass, until all the organic matter, except certain particles of fat, was as far as possible reduced to a homogeneous fluid. Through the clear fluid obtained a stream of sulphuretted hydrogen gas was passed for some hours, and the precipitate collected on a filter was well washed, and dissolved in the smallest possible quantity of nitro-hydrochloric acid. The residue, after careful evaporation of this solution, was dissolved in water.

A simple galvanic apparatus, consisting of two plates, connected at one edge (of this form), one very thin, being of gold, the other of zinc, was immersed in this watery solution, and after a few hours the gold had assumed a greyish white appearance, which by friction became of a silvery white.

The gold was then separated from the zinc plate, and introduced into a glass tube, previously cleaned and dried, and sealed at one end by the blowpipe, and thus heated over a spirit-lamp; under which agency the whitish tinge disappeared from the gold, and globules of mercury, visible to the naked eye, but better observed with a lens, were condensed in the tube, thus demonstrating the existence of mercury in the tissue of the liver under examination.

Erlangen, June 14, 1857.

ON THE SUBCUTANEOUS REMOVAL OF LOOSE CARTILAGES FROM THE KNEE-JOINT.

By W. J. SQUARE, Esq.
Surgeon to the Devon and East Cornwall Hospital.

Having witnessed a death and an amputation of the thigh as results of operations for the removal of loose cartilages from the knee-joint, I relate with pleasure a case of this description cured by subcutaneous incision, and the subsequent excision of the loose cartilages.

James Ellis, aged 33 years, a farm-servant, was admitted into the South Devon and East Cornwall Hospital on December 3, 1856. He has been more or less lame for eighteen years, and during the last year has been almost incapable of work. He has felt the two foreign bodies in the joint for fifteen years. At first small, they have gradually increased in size. The right knee-joint is somewhat larger than the left, and two foreign bodies are readily felt in it. One seems as large as a walnut, the other as a common hedge-nut. By displacement in walking they cause excessive and sudden pain, and his lameness and distress are often increased by effusion into the joint.

Operation, December 8, 1857.—Having pushed them into the upper and outer part of the joint, I entrusted them to Mr. Whipple, who kept them firmly fixed in that position; I then made two subcutaneous incisions on the outer aspect of the thigh, with a long straight tenotomy knife. The first about five inches above the knee, the knife being moved semicircularly to separate the cellular tissue from the fascia; the second two inches above the joint, by which the subcutaneous separation of cellular tissue was continued down as far as the cartilages, and the joint opened by cutting vertically upon them. This accomplished, I lifted them from their position with the point of the knife, and slid them along the cellular tract eight inches up the thigh. Compresses were then placed along the tract of the subcutaneous wound, a bandage applied, and a straight splint along the back of the limb.

22nd.—No inflammation or other symptoms having followed this operation, I on this day removed the two cartilages by a vertical incision.

30th.—Some stiffness of the joint remains. Discharged cured.

The cartilages are of yellow, waxy aspect, and are composed of bone and cartilage, with a predominance of the former. They appear to be covered by a fine membrane, and are highly polished.

Surgery is ever on the advance. Conservative surgery has of late been studied and practised with the happiest results. Operations which experience has proved to be dangerous have been superseded by others, attended with less risk to limb and life.

Among these may be ranked, the removal of loose cartilages from the knee and other joints by the subcutaneous method. I believe that I am correct in stating that M. Goyraud, of Aix, was the first Surgeon who proposed this operation. His example was speedily followed by the late Mr. Liston, who modified the plan of M. Goyraud, by allowing the foreign body to remain in the cellular tissue in which it is imbedded. He found that its presence caused no inconvenience to the patient, and that it gradually increased in size.

I presume that this plan is only feasible when the cartilage is small, and not bony in structure. Mr. Syme also at once recognised the value of the operation, and adopted it with Mr. Liston's modification. Many other Surgeons have performed it, and with good success.

I publish my case, therefore, as an appendix to many which have preceded it, and as a unit in the sum total to increase the repute of a valuable addition to surgical science.

Plymouth.

THE LONDON
PRACTICE OF MEDICINE AND SURGERY.

THE ROYAL LONDON OPHTHALMIC HOSPITAL.

REPORT OF OPERATIONS PERFORMED AT MOORFIELDS, FROM THE 21st OF APRIL TO THE 25th OF JUNE, 1857.

(Communicated by CHARLES BADER, Esq., Curator to the Hospital.)

THIS, and future Reports, will give the number of operations, and, as far as is compatible with limited space, the mode in which they were performed, and the immediate result; it will specify the cases for which they were employed, and describe more particularly those operations which are unusual in themselves or in their application. The previous history of the cases, and the final result, must for the present be omitted. We hope, however, by specifying the cases and respective operations, to obviate some common fallacies in statistical tables.

1. *Lachrymal apparatus*—7 operations. One case of paring of the edges of a fistulous opening over the lachrymal sac, to produce union. Six cases of purulent discharge from the lachrymal sac, treated with the actual cautery, after the plan of Desmarres. Mr. Critchett thinks favourably of the operation; in two cases he has practised it on both sacs at the same time.

2. *Eyelids*—22 operations. Six cases in which a portion of skin of the lid was removed; for ptosis, in two cases; where the upper lid covered an artificial eye, in one case; and in three cases for entropium of the lower lid. The cases appear to heal quicker and as well without employing sutures. Ten cases of removal of the palpebral edge as far as the eyelashes are concerned; of those eight were cases of entropium, one of trichiasis, and one (a case of Mr. Critchett's) where the unevenness of the palpebral edge appeared to keep up the vascularity of the cornea, and the general irritation. A peculiar warty-looking growth, causing ptosis, removed by Mr. Bowman from the upper cul-de-sac of the conjunctiva. Two cases of sebaceous tumours beneath the orbicularis of the upper lid; the entire removal of the walls of these tumours was effected. One case of anchylo-symblepharon of the eyelids of both eyes, separation of the adhesions of the lids, and interposition of a glass mask, with a hole in the middle; a case of removal of a smooth tumour of the size of a pea, seated in the conjunctiva between the inner canthus and the corneal margin (cancer?).

3. *Muscles. Strabismus*—30 operations for internal, and two for external strabismus; the muscles were subconjunctivally divided: neither in these, nor any other cases, external strabismus resulted. The external strabismus (in a girl, a patient of Mr. Poland's) was remedied by division of both external recti; shortening of the conjunctiva by sutures over both the internal recti, and narrowing of both palpebral apertures by paring the outer canthus, which entirely removed the proptosis existing before these operations. Removal of a congenital overgrowth of the sclerotica at the edge of the cornea.

4. *Staphyloma corneæ*—3 cases in children, which were all removed with the knife.

5. *Excision of the eyeball.* — 12 cases. The operation is performed as usual by separation of the conjunctiva close to the cornea, division of the tendons of the muscles separately, and of the optic nerve. The necessary instruments are, an eye-speculum, a forceps, one pair of curved scissors, and a strabismus-hook; the operation, as a rule, lasts from three to five minutes, and the patients leave the Hospital in a few days, many of them being able to wear an artificial eye the third day after the operation.

6. *Iris.*—Cyst of the iris, one case of Mr. Dixon's, one case of Mr. Bowman's. Mr. Dixon commenced the treatment by lacerating the anterior wall of the cyst, entering through the cornea. Mr. Bowman, by opening the posterior wall, entering through the sclerotica. Prolapse of the iris, three cases; opening of the prolapse with scissors. Excision of a piece of iris for the relief of glaucoma, one case by Mr. Bowman. Artificial pupil, eight cases. In one case the pupil was formed by simply dividing the iris with a broad needle. In three cases the piece of iris, drawn out with the blunt hook, was snipped off with scissors; and in four cases it was left in the corneal wound.

7. *Crystalline lens.*—(a.) Extractions where the cataract was not complicated with inflammatory symptoms, or products of inflammation in front of the lens—46 cases. In 39 cases the corneal section and the removal of the lens were completed without any accident. In one case, the corneal section was enlarged with the blunt-pointed knife; 3 were traumatic cases then brought to the Hospital, and in 3 cases, more or less vitreous humour was lost. (b.) Extractions in cases where the pupil is obstructed by products of inflammation—7 cases. The following case of Mr. Bowman's may serve as an instance. A young man, with strumous deposits in both pupils, the iris adherent, the conjunctiva slightly reddened; cannot see to find his way about. Right eye: a small corneal section was made, the deposit in the pupil opened out with two needles, and clear lenticular matter removed. A week afterwards the left eye was operated on by making a complete corneal section, lacerating the strumous deposit, and removing the lenticular matter with the curette and a sharp hook; part of the deposit adherent to the pupillary margin, and still obstructing the pupil, was fixed with the sharp hook, and, this not answering, with the canula forceps, and excised with the canula scissors. Three weeks later: both pupils were closed up by lymph; both eyes were again operated upon by division of the lymph with the broad needle, enlarging the corneal wound on withdrawing the needle for the introduction of the canula scissors, further dividing the lymph with them; the piece still being connected slightly with the iris, was drawn out with the canula forceps. The patient could then count fingers with either eye. (c.) Congenital cataracts —8 cases; and other cataracts operated on with the needle—4 cases. In one of the former (a case of Mr. Wordsworth), while the needle was in the left lens, the boy made a sudden movement; and, after steadying the head, there was a clear black space in the situation of the cataract. It is supposed that the needle transfixed the lens, entered the vitreous humour, and that, on withdrawal, the latter bulging and distending the rent in the soft cataract, gave the black appearance to the pupil. Luxation (by injury) of the previously cataractous lens inclosed in its capsule under the conjunctiva (case of Mr. Streatfeild); the patient had useful vision after its removal.

8. *Operations for what is called "false membrane" in or behind the pupil*—26 cases. Fifteen of them were operated upon with two, 8 with one, and 3 with a broad needle. In one of them (case of Mr. Dixon's), in which there was occlusion of the pupil after iritis, Mr. Dixon used a needle for the patient's right eye, with good result.

Total of operations during two months, 181. These were

All performed in the operating-theatre of the Hospital, and a much larger number of minor operations performed in the Out-patients' consulting-room are not included. It is proposed, in future monthly reports, to give further particulars and after-results of the more important cases now given, and to continue the abstracts of the operation cases.

STATISTICAL REPORT OF THE PRINCIPAL OPERATIONS PERFORMED DURING THE FIRST QUARTER OF 1857.

(Concluded from page 9.)

The subjoined Report includes, as usual, the following Hospitals:—University College, King's College, St. Bartholomew's, St. George's, Guy's, St. Thomas's, the London, the Middlesex, the Westminster, Charing-cross, St. Mary's, the Metropolitan Free, the Marylebone, the Hospital for Sick Children, and the "Dreadnought" Seaman's Hospitals.

TRACHEOTOMY.

Case 1.—Guy's: Mr. Forster.—An infant aged eleven months was admitted on account of stridulous breathing, which was stated to have just come on quite suddenly, and without known cause. The difficulty in breathing was very great, and suffocation appearing imminent, tracheotomy was performed about four hours after the commencement of the symptoms. Much loss of blood attended the operation, and the infant was all but dead. No foreign body was found, and the tracheal tube was not introduced, in the hope that if anything were impacted it might be coughed up through the wound. No relief was obtained, and death occurred about three hours afterwards. At the autopsy, a piece of bone about the size of a fourpenny-bit was found firmly impacted in the rima glottidis. It was afterwards ascertained that just before the difficulty in breathing began, the mother had been feeding the child with mutton broth.

Case 2.—The London: Mr. Sharman (House Surgeon).—A stout healthy child, aged two years and a half, was admitted, having drank boiling water from a kettle. It was about an hour and a half after the accident, and the symptoms were very alarming. Tracheotomy was performed, and all did well for twenty-four hours, when symptoms of acute bronchitis set in, and death followed eighteen hours later. At the autopsy the larynx only was examined; its mucous membrane was found inflamed, and so swollen as to obstruct the passage at the rima glottidis.

Cases 3 and 4.—St. George's.—In these two boys, aged respectively two and four, had tracheotomy performed as a last resource in croup. Both died within a few hours of the operation.

Case 5.—St. George's.—A girl, aged 5, admitted on account of laryngitis following scald of the throat. Tracheotomy was performed, but the child survived only a few hours.

Case 6.—Guy's: Mr. Daniel (house-surgeon).—A woman, aged 44, under care on account of syphilitic laryngitis. The disease had existed five weeks. At the time tracheotomy was performed she was in articulo. She was with difficulty revived after the operation, but subsequently did well and made a rapid recovery.

EXCISION OF THE TESTIS.

Case 1.—King's College: Mr. Fergusson.—A man, aged 38, in fair health. Thirteen years before he had received a blow on the scrotum from a cricket ball, and eleven years later another from the same on the same part. It appeared that the enlargement of the testicle had been more particularly noticed after the second injury. It had enlarged to the size of an adult fist. The cord was healthy. After removal the disease proved to be firm variety of medullary cancer. Recovered.

Case 2.—The Metropolitan Free: Mr. Hutchinson.—A well-grown child, aged a year and seven months. The left testis was enlarged to about the size of a child's fist, and presented all the features of medullary cancer. It was excised, and proved to be a good example of that disease. The child recovered well. The cord was not diseased, nor were there any indications of enlargement of the lumbar glands. The child remained quite well three months after the operation, and had much improved in flesh and general health.

AMPUTATION OF THE PENIS.

A man, of middle age, under Mr. Simon's care in St. Thomas's. The penis was amputated near its root on account of epithelial cancer. The man recovered well as far as the operation was concerned, but afterwards had hæmoptysis, and sank into a very feeble state. Death took place before leaving the Hospital, some months after the operation.

HOSPITAL NOTES.

CASES OF STRICTURE OF THE VAGINA.

We regret to find that we were premature in reporting last week a favourable termination to Mr. Coote's case of contraction of the vagina. It will be remembered that treatment by forcible dilatation under chloroform had been resorted to. For some time afterwards all was as well as could be expected, and Mr. Coote believed that the condition had been permanently relieved. Subsequently, however, *i. e.* nearly a fortnight after the procedure, the patient became restless, and complained of pain about the hypogastrium. Leeches were applied. She got worse, although there were no marked indications of peritonitis. Four days after the supervention of these symptoms she somewhat suddenly passed into collapse and died. No autopsy could be obtained. Mr. Coote's belief was that she died from low inflammation of the uterus and pelvic peritonæum. It should have been stated that the stricture was about two inches from the vulva, and that very little bleeding indeed attended its dilatation. Immediately after it, however, the woman became pale and blanched, and she had subsequently some hysterical disturbance. As the woman was in good health before we cannot easily escape the conclusion that the fatal result was due to the procedure adopted, and the case, therefore, places the treatment in a much less favourable light than we had last week believed. To ascertain the real nature of the fatal mischief, Mr. Coote was exceedingly anxious to have had a post-mortem, but permission was obstinately refused. In its absence we are left to conjecture that in the dilation some injury or laceration of the peritonæum had taken place. With this supposition it is however difficult to reconcile the comparative absence of ill symptoms during the early period.

THE CAUSTIC TREATMENT OF CANCER OF THE BREAST.

Those interested in this subject, who have an opportunity of visiting St. Thomas's, may watch the progress of a case treated according to Dr. Fell's plan. The patient is an elderly woman, the subject of cancer of the left breast, the mass being large, and in the first instance not adherent to the skin. The latter was of course not ulcerated, and had to be destroyed by nitric acid. A surface, nearly the size of an outspread hand, was so destroyed, and the slough now existing corresponds with it. The acid gave great pain, and the woman insists that much pain has likewise attended the subsequent applications of the caustic paste. She has not, however, suffered materially in health. The application is made on threads of worsted inserted in the furrows made by scarification. The patient is under Mr. Simon's care, and the details of the treatment are attended to by Mr. Sidney Jones, the latter gentleman having learnt them in Dr. Fell's consulting room, and at the Middlesex Hospital.

CASES OF BRONZED SKIN.

The case to which we referred a few weeks ago as under Dr. Addison's care in private, and presenting in a very marked degree the phenomenon of bronzing, has, we are informed, terminated fatally. The patient was a young lady. Dr. Addison was present at the post-mortem, which afforded a very complete corroboration of his views. Both supra-renal capsules were wholly disorganised, and one had suppurated, whilst there were few, if any, evidences of disease in other organs.

An interesting case has just ended fatally, under Dr Tuke's care at the York Dispensary. Dr. Tuke writes that he had "no doubt it was 'bronze skin.'" The abdomen, forehead, between the shoulders, and about the mammæ, were the parts principally discoloured. The prominent symptoms were sickness, exhaustion, blood in the urine, and diarrhœa, alternating with constipation. No tenderness in the loins existed.

There was no evidence of visceral disease, excepting that of the supra.renal capsules. The woman at length died, and unfortunately a post mortem was positively refused. Thus the most important evidence is deficient; ther is, however, such a similarity in the constitutional symptoms with those observed in other cases, that few who have seen much of the disease will doubt the correctness of Dr. Tuke's diagnosis.

NOTES AND QUERIES.

He that questioneth much shall learn much.—Bacon.

No. 212.—Bromide of Potassium in Satyriasis.

Has the bromide of potassium been tried among adult idiots? The uncontrolled sexual passion in those unfortunate creatures is known to be one of the greatest sources of trouble in dealing with them when the inmates of an asylum.

ANSWERS.

To No. 211.—Ovifuge Properties of the Raspberry Leaf.

In answer to a query as to the ovifuge properties of the the leaves of the common raspberry plant, I would observe, that after a trial of a very strong and hot infusion in some 20 or 25 cases, (for I have not preserved any notes of the cases,) I am induced to conclude that it possesses decided ovifuge properties; most certainly in several cases powerful uterine action superseded inertia in about fifteen minutes after its exhibition; in 5 cases the patient took it under the impression that it was simply a bad cup of tea, in perfect ignorance of its being a potion given with any specific intention. I was led to try this infusion by the desire of a patient who always required ergot to produce active uterine pains, and was also always the subject of post-partum hæmorrhage; twice in her case the infusion most certainly has been signally efficacious for both the desired ends.

Lowestoft, June 29. M.D.

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Medical Times & Gazette.

SATURDAY, JULY 11.

BRITISH AND FOREIGN ARMY MEDICAL DEPARTMENTS.

Before the sittings of the Royal Commission on the Medical Department of the Army are brought to a close, it appears desirable to complete the account we have given in former volumes, of the organization of the Medical Departments of other States. The information which follows, on the Medical Service of the armies of Spain and Portugal, concludes a series of articles which afford all the materials for a comparison between British and Foreign Army Medical Departments.

SPAIN.

The Medical Department of the Spanish Army was remodelled so late as April, 1855; and at the date of Dr. Fallot's notes upon it, some of the subordinate arrangements had not been completed, particularly those relating to the School of Military Medicine to be founded at Madrid. The following is its present organization:—

Grades.	No. of each grade.	Rates of pay.	Relative Military Rank.
		£ s.	
Director-General	1	400 0	Lieut.-General.
Inspectors	2	300 0	Major-General.
Sub-inspectors, 1st class	6	240 0	Colonel.
Sub-inspectors, 2nd class	8	200 0	Lieut.-Colonel.
Surgeon-Majors	13	160 0	1st Major.
First Medical Officers	62	120 0	2nd Major.
Assistant Medical Officers, 1st class	Not fixed.	100 16	Captain.
Assistant Medical Officers, 2nd class	Not fixed.	80 0	Lieutenant.
Acting Medical Officers	20	60 0	Lieutenant.
Medical Candidates	*	..	....
Apothecary Inspector	1	240 0	Major-General.
Sub-inspectors of 2nd class.. ..	1	200 0	Lieut.-Colonel.
Apothecary Major	2	160 0	1st Major.
First Apothecaries	4	120 0	2nd Major.
Assistant Apothecaries, 1st class ..	8	100 16	Captain.
Assistant Apothecaries, 2nd class..	16	80 0	Lieutenant.
Acting Apothecaries	8	60 0	Lieutenant.

* Their number and position will be determined by the ordinance which establishes the intended school of Military Medicine.

In addition to these grades, there are two classes of Medical Officers and Apothecaries employed when necessary; the first, termed "Provisional," have the rank of Lieutenant while serving, with the pay of £80 per annum; the second, or "Auxiliary," receive £3 per month in time of peace, and £4 in time of war; but that allowance may be increased, if necessary, by the Commander-in-Chief, or by the Captains-General. A sanitary brigade is to be established, to furnish hospital attendants, and in time of war to perform the duties of an ambulance corps.

The Director-General takes rank with, and enjoys the same privileges as the Inspectors-General of the different arms. The Council of Health of the army is composed of the Director-General and the two Inspectors. In all scientific matters their opinion is decisive; on questions of administration it is merely recommendatory.

Candidates for admission into the service must be of good character and sound constitution, not above thirty years of age, in possession of the title of Doctor, or Licentiate in Medicine and Surgery, or in Pharmacy, and must have passed a public examination. On first appointment they have the grade of probationary Medical Officer or Apothecary—promotion to the rank of Assistant of the 2nd class takes place by seniority alone; from that up to the grade of Sub-Inspector, two-thirds are promoted by seniority, and one-third by selection; the Inspectors are chosen from the Sub-Inspectors of the 1st class, and the Director-General is selected from the Inspectors.

In time of peace, literary or scientific merit or extraordinary services rendered to the Army form the grounds of selection; but the selection must be made from the officers on the upper third of the list of the "Assistants" and "First Medical Officers," and from the senior half of the Surgeon-Majors and Sub-Inspectors. This condition, however, is dispensed with in the case of brilliant services in time of war, provided the officer has served three years in his present grade. As the Medical Officers and Apothecaries of the Hospitals have not the opportunity of distinguishing themselves on the field of battle, to have suffered from Hospital typhus, or to have been in charge of soldiers attacked with scurvy, typhus, or epidemic dysentery, is viewed in the same light, and rewarded under similar conditions.

Medical officers receive the same rate of retired pay as the corresponding military ranks, but they are permitted to count as seven years of service the time passed in studying their

Profession. Their uniform, which is handsome, differs from that of the other branches of the service.

The Director-General has the power to recommend Medical officers for certain honorary distinctions; these are:—the Cross of Scientific Emulation of the Medical department of the Army; the Cross of Isabella the Catholic; the supernumerary Cross of Charles III.; and, lastly, the Cross of St. Ferdinand. The conditions upon which they are bestowed are established by a Royal Warrant. Among the chief grounds of recommendation for these rewards may be mentioned, the publication of a work of distinguished merit on some point bearing directly on the health of soldiers or the treatment of diseases to which they are subject; the preparation of a complete and well-digested history of any epidemic or contagious disease to which they have been exposed; great zeal and devotion during an epidemic; remarkable success in the treatment of the wounded; the introduction of some special mode of treatment which has proved of great advantage to the army. In time of war these recommendations for honour are made by the Generals-in-Chief.

PORTUGAL.

The organisation, pay, and allowances, of the Medical department of the army of Portugal on the peace establishments were fixed by royal ordinance of the 2nd of December, 1852, and are shown in the following table:—

Grades.	No. of each rank.	Relative Military Rank.	Rates of pay. £ s. d.	Allowances. £ s. d.
Surgeon-in-Chief ..	1	Colonel.	172 16 0	73 0 0
Surgeon of Division.	2	Lieut.-Colonel.	141 2 6	73 0 0
Surgeon of Brigade..	6	Major.	131 10 0	73 0 0
Brevet-Surgeon of do	2	Brevet-Major.	70 11 0	73 0 0
Superior Surgeon ..	Not fixed.	Captain.	70 11 0	29 3 0
Assistant-Surgeon ..		Lieutenant.	63 16 9	15 13 8
Apothecary	3	....	70 11 0	29 3 0
Assistant ditto ..	1	....	44 3 2	..

The department is under the direction of the Surgeon-in-Chief, assisted by two superior Surgeons, and forms a special division of the War Office. The Surgeons of division and of brigade are attached to the different military divisions; and in addition to the superintendence of these, are required to make the general inspections, and to direct the service of the Hospitals established in the towns where they reside. The brevet or honorary Surgeons of brigade conduct the permanent Hospitals of Lisbon and Oporto, and the superior Surgeons, with the Assistant-Surgeons, do duty in the regimental Hospitals and with the depôts.

There is a sanitary company, consisting at present of 107 men, which furnishes servants to the military Hospitals. These, as well as the purveyors, are under the direct orders of the Medical officer in charge of the Hospital, upon whom devolves the whole of the administration and finance of the establishment. We have no information as to the mode of admission into the department, the class from which young officers are taken, or the regulations affecting their promotion and retirement.

THE WEEK.

The Medical Reform Bill of Mr. Headlam was postponed on Wednesday, and it is doubtful if it will be brought forward again this Session. If so, as Lord Palmerston has told Mr. Headlam, "It must be left to the tender mercies of Parliament." A deputation from the University of London and University College had an interview with Lord Palmerston last Saturday. The minister said he had decidedly declined to support Mr. Headlam's Bill, and approved rather of the principles of that of Lord Elcho, but declined also to give that Bill the active support of Government. It is most unlikely, therefore, that any measure can pass this Session. In the meantime it must be determined what course can be taken at all likely to reconcile conflicting interests. It would be quite useless to refer the question to another Select Committee of the House of Commons; and it appears, on the whole, that a Royal Commission, composed entirely of laymen, would be most likely to give general satisfaction. They could call for evidence from members of every class and order of the Profession; and being above any partial influences, they could form an unbiased opinion upon the Public and Professional aspects of the differences between the Universities and the Corporations. No one can support the Bill either of Lord Elcho or of Mr. Headlam without doing injustice to one or other of these great interests. Their representatives cannot arrange terms of compromise. Some impartial arbitrator should therefore be appointed, and a Royal Commission appears to be the scheme most likely to lead to a fair and satisfactory measure for next Session.

At the time of going to press, the telegraphic report of the acquittal of Madeleine Smith had just reached us. Any critical analysis of the Medical evidence in the case would therefore be premature this week; but one curious fact brought forward may be noticed. In the evidence for the defence, is the circumstance that an employé of Blackwood was brought forward to prove that on a certain date an article appeared in *Blackwood's Magazine*, on the Use of Poisons and Cosmetics, and that the demand for the number containing this article was immense. It was deposed that 16,000 copies of it had positively been sold! It was also proved that some papers on arsenic, in *Chambers' Journal*, were received with equal popularity. What facts for the satirist, and the social reformer! What a taste for poison, by vanity-stricken fools! What a charge against the pandering of the press to popular imbecilities!

A move in the right direction, originating at King's College, has been followed at St. Mary's, and at a newly-established Hospital called the Great Northern. The Physicians and Surgeons who attend to the out-patients are no longer to be called Assistant-Physicians and Assistant-Surgeons, but Physicians and Surgeons—their duties, however, still being the attendance on out-patients. This is as it should be—and the graceful manner in which the change has been effected at St. Mary's, by a spontaneous act of the seniors, is worthy of record and imitation. If the right to six, four, or even two beds, were conceded to the junior officers of our Metropolitan Hospitals, there can be no doubt that it would materially assist them in their preparation for the duties they expect to succeed to, and be a great advantage to the patients, and to medical science in this country.

We are glad to find that the Registrar-General has again instituted inquiries into the question whether diarrhœa invariably precedes an attack of cholera or not; and we trust the Profession will assist him in his laudable endeavours to increase our knowledge of the pathology of this formidable disease.

The Société des Sciences Industrielles de Paris have determined upon the erection of a statue to Jenner upon the quay at Boulogne, as being the most usual spot in France for landing from England. M. Paul has been intrusted with the execution of the statue, which is to be inaugurated in June, 1858. Subscriptions may be addressed to M. Gossart, 217, Rue St. Honoré, or to the office of the *Union Médicale*, Paris.

We advise our Jennerian Committee to hasten their steps somewhat, or they will be anticipated on the other side of the Channel.

The election to the Council of the College of Surgeons has passed off, as was expected, in the re-election of Mr. Coulson and Mr. Gulliver, and the election of Mr. Tatum. There seems to be a strong feeling, however, among the Fellows that the system of re-election as a matter of course, and of election by seniority only, also as a matter of course, must be modified, and that means should be taken to select the Council from the most distinguished Surgeons among the Fellows,—that professional merit, rather than age, should be the test of candidates. There are difficulties in the way, and any organized movement might lead to instances of individual hardship; but the feeling that something should be done is too general not to lead to some result before next year. There is nothing to say of the annual dinner of the Fellows, except that the usual harmony was a little disturbed by Mr. Green, who made an attack on specialists, which, under accidental circumstances, appeared a little personal.

A curious case has just been tried before Mr. Justice Erle, —Trend *v.* Smith, General Practitioners at Eye in Northamptonshire. The action was for slander; and the jury gave £75 damages. The plaintiff had the word "Surgeon" on his door, sent the letters M.R.C.S. after his name to the Directory, and had called himself a Surgeon in a circular soliciting the appointment of registrar of births. Proof was given of the defendant having said the plaintiff was an impostor and a swindler, and not duly qualified to act as a Medical man; and he could stop him at any time if he thought proper. Several persons had refused longer to employ the plaintiff on account of what the defendant had stated. A farmer stated that he had employed the plaintiff, and paid him £20 at a time, but he did not employ him because the defendant had said he was not a doctor, but he should call him in again if he found he was a doctor. The defence was that the plaintiff had falsely reported himself to be a Surgeon, when he was only an Apothecary; but the jury seemed to think Mr. Smith had gone too far.

A pamphlet has just appeared, by "A Member of the Royal College of Surgeons," recommending a practice which, however repugnant to some cherished notions, is worthy of attention on the ground of its sanitary tendency. The writer recommends a general recurrence to the practice among the Romans of burning the dead, instead of burying them, as is the custom in the present day. He represents in vivid language the abominations induced by intramural interments; and although the remains of the dead are now interred in spacious cemeteries, he shows that in no long period of time, at the present rate of mortality, and at the present rate of increase of the population, these receptacles will themselves become gigantic nuisances to the living. He proposes a decent and expeditious method of consuming the dead by fire, allowing the mephitic vapours to escape into the surrounding atmosphere, and retaining the ashes for collection and preservation in appropriate urns. We think that on scientific, and hygienic, and even on religious grounds, the author has entirely proved his case, although we doubt whether popular prejudices will allow of his plan being carried into effect, at least during the term of the present generation, and until the habit of burying the dead shall become such a positive and palpable evil as to call imperatively for removal. If once our dearly-cherished prepossessions could be amenable to the force of reasoning, it would be surely an easy matter to prove that the purifying influence of fire over our mortal remains is very far to be preferred to the slow, tedious, disgusting, and (to the living) dangerous process of allowing them to rot and corrupt in the earth, and by their putrid exhalations to poison the surrounding atmosphere.

The Scottish Lunacy Bill has been materially amended since its first reading, but the importance of the Medical element on the Board is still very inadequately admitted. No Board of Lunacy Commissioners can be complete without a full share of Medical members, yet a clause is introduced, "Provided always that one of such paid Commissioners, *and one only*, shall be a Medical person." So that ignorance of medicine is to be a qualification for a seat on the Board for all except one member! There is no such restriction, be it observed, to the number of lawyers. There are plenty of lawyers in Parliament, and no such clause would be permitted. It is to be hoped that some friends of "Medical Persons" will move the omission of the words, *and one only*, in Committee.

Mr. Griffin has addressed a letter to the Poor-law Board, asking some questions which he considers to be of vital importance both to the Union Medical Officers and to the sick poor. The questions are, Who are to be considered the proper subjects for Poor-law Medical relief? and whether the only recipients of such relief are literally "the lame, impotent, old, blind, and such other among them being poor and not able to work?" and what course a Medical officer ought to pursue when the relieving-officer sends him orders to attend persons not coming under either of those classes? It is argued in a late leading article of a legal periodical, that many of the grievances of which the Poor-law Medical officers complain may really be caused by the too great facility with which relieving-officers grant the Medical orders for attendance on the sick; and that the poor-rates are often unduly burdened by throwing the cost of Medical relief upon the parish, in cases where the patient could bear the expense himself. There is, no doubt, considerable pertinence in these questions, and much unnecessary trouble is often given to the Union Medical officer by calling upon him to attend cases where the parties are not actually paupers; still we are inclined to think that every case must stand upon its own merits; and that it is not possible to point out, by any distinct line of demarcation, what should be the precise duty of relieving-officers and Union Surgeons in every conceivable instance. It is clear that in cases of sudden and dangerous illness it would be inexpedient to enter into a legal investigation of the pauperism of a person before granting him an order for Medical relief; and it would be better that the poor-rates should suffer than that a sick patient should be allowed to perish unrelieved; and, again, the ability of a poor person to pay for Medical relief must depend upon a number of collateral circumstances which cannot be comprehended in a strict legal category. A man earning ten shillings a-week in the country is richer than one who earns fifteen shillings a-week in a town; and a man with a wife and children is poorer than a single man, although the amount of wages may be equal. Still, as Mr. Griffin has asked the questions of the Poor-law Board, we shall be curious to hear their answer. Another correspondent, who signs himself "A Poor-law Medical Officer," takes Mr. Griffin to task in consequence of his agitation in favour of the appointment of gentlemen with the double qualification as Poor-law Medical officers, in preference to those who possess only one diploma; but we must confess that Mr. Griffin's position is not shaken in our opinion by any of the arguments adduced

by the "Poor-law Medical Officer." If we understand Mr. Griffin aright, that gentleman represents that a sufficient number of Medical men possessing the double qualification can be found to fill the Poor-law posts, if the remuneration were made adequate, and that many of the offices are now filled by gentlemen possessing only one qualification, merely because their brethren who possess two will not accept the salaries which are offered. It is very much to be regretted that the College of Surgeons' examination does not comprehend an inquiry into all the subjects necessary to be understood by the Practitioner, or that some other examination is not instituted, which shall embrace both Surgery and Medicine; but, while the law and the custom remain in their present state in England, we conceive that the Poor-law Board is justified in requiring a double qualification in the case of those who hold Poor-law appointments; and our only source of regret is, that the Board, in this respect acting so justly to the sick poor, does not enforce a more adequate scale of remuneration for gentlemen who have undergone a thorough course of Medical education, and who are competent to all the exigencies of our Profession.

REVIEWS.

Memorials, Scientific and Literary, of Andrew Crosse, the Electrician. London: 1857. 8vo. Pp. 360.

These Memorials, by the widow of her dead husband, will certainly be received with kindness. Andrew Crosse was in many respects a remarkable man. "Few so deserving were so unknown," says his widow; adding, "His fame would have been wide had he been poor, ambitious, or wise in worldly wisdom." He was wonderfully active, zealous, industrious; was a man of considerable genius, and yet, constantly on the verge of extraordinary success, he failed; and he failed as many before him have failed, and many who come after him will fail, because he was desultory and discursive, and did not steadily direct his labour to any definite purpose. In 1816 the electric telegraph was in his grasp, yet he let it slip from him while predicting its marvellous future. He obtained remarkable results from experiments to show the influence of electricity on vegetation; he converted plaster casts into marble; he showed how metals might be separated from their ores by electricity; he believed that he had actually created an unknown insect—and it is certain that insect life was produced under conditions that would have destroyed life had it not been for the influence of electricity. All this he did, and much more—yet he failed. His discoveries came to nothing. He did not follow out his plans to completeness; yet, as we said before, he was a remarkable man, and the "Memorials" before us are full of interest. They are full of suggestions to the scientific student, and they teach a grave lesson to the scientific idler and to the scientific enthusiast who is content without attaining excellence.

A Letter to the Vestry of St. George's, Hanover-square, on Sanitary Work and Experience in Belgravia. By C. J. B. Aldis, M.D., F.R.C.P., one of the Medical Officers of Health. Pp. 25. London. 1857.

Report on the Sanitary Condition of St. Mary's, Islington, during the Year 1856. By Edward Ballard, M.D., Medical Officer of Health. London. 1857.

In consequence of a movement in the Vestry of St. George's, Hanover-square, Dr. Aldis has thought it incumbent upon him to publish a pamphlet containing a general argument in favour of Medical sanitary supervision, and a special description of his own labours in this direction since his appointment as Medical Officer of Health. We think that he has succeeded in establishing both points very satisfactorily.

Dr. Ballard's pamphlet presents us with a most elaborate analysis of the causes in operation at Islington in producing disease, and some sound advice for effecting their removal. He describes the comparative mortality in the different districts of the parish, and he points out the steps which have already been taken during the last year for the removal of local nuisances. He also gives a copious table at the end of his pamphlet of the rate of mortality throughout the year, and its relation to the prevailing winds and the temperature.

Lives of British Physicians. Second Edition. 8vo. Pp. 415. London. 1857.

We have shown in our pages an earnest desire to cultivate the biographical literature of Medicine. We have faith in this branch of Medical study—in its teachings, its morals, its practical advice. Hence we cordially recommend to all readers the admirable little volume now before us. In the first edition this work included the lives of Linacre, Carus, Harvey, Browne, Sydenham, Radcliffe, Mead, Huxham, Pringle, Fothergill, Heberden, Cullen, Hunter, Warren, Baillie, Jenner, Parry, and Gooch. To the present edition the lives of Merriman, Halford, Paris, Chambers, and Clutterbuck are added.

The biographies of Merriman, Chambers, and Clutterbuck, are written by the present editor, and are excellent specimens of condensed and accurate biographical writing. The biographer having had the advantage of a personal acquaintance with those whose lives he chronicles, writes of them with the earnestness of surviving friendship and admiration, and with the confidence of an intimate knowledge of the subjects of his theme. The three men had none of them, it is true, the fire of genius—nor are their works of so weighty a cast as to call forth the prose-poetry of biography. Indeed, with the exception of Harvey, the same may be said of all the characters in the work. But they were, notwithstanding, first-class exemplars of the Medical fraternity, in all that relates to industry, patience, dignity, and honour. The following is a single specimen of the style and matter of the work. The writer is describing the last days of Dr. Clutterbuck:—

"Dr. Clutterbuck performed the duties of his Profession to the very last. He attended the anniversary meeting of the Medical Society on the 8th of March, 1856. Having heard the oration at Willis's Rooms, he left the room to walk home, and in crossing the street was knocked down by a street cab. From the injuries thus received he never recovered, but lived about six weeks afterwards. He retained his faculties to the last, and is said to have seen patients to the very day he died.

"The life of Dr. Clutterbuck is fraught with lessons of instruction, and affords an admirable example of the success which results from industry, perseverance, and probity. He was unassisted by family influence, fortune, or connexions, and had few patients among the higher classes. He never received an honour from the Royal College of Physicians—having declined the only one offered him, a Fellowship, at an advanced period of life. But he was highly respected, and even venerated by the public and the Profession, as an example of an excellent and practical Physician, who had attained the highest reputation by his own talent, industry, and spotless character."

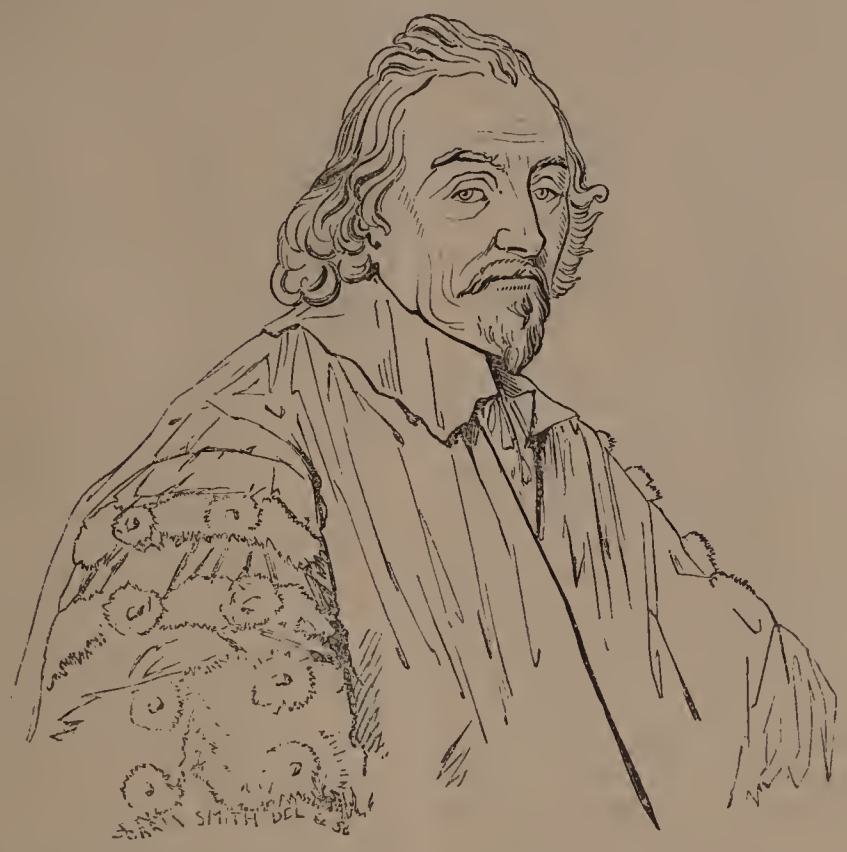
Congratulating the present editor on the honest and satisfactory mode in which he has performed his task, we heartily recommend the result of his interesting labours to all those readers, in and out of the Profession, who would enjoy an hour with the best authors in Physic.

Caution to Chemical Experimenters.—An accident that might have been attended with the most serious consequences occurred last week, at the School of Pharmacy at Strasburg. It was intended to exhibit the fact that picrate, or carb-azotate of potass, became decomposed with detonation at a high temperature. The first experiments having failed, the assistant, becoming a little confused, emptied some of the salt direct from the bottle on to the heated plate. The flame spread to the contents of the bottle, which immediately became shivered with a fearful detonation. The fragments were projected in all directions, and with such force as to leave marks on the walls. Many bottles and panes of glass were broken, and several of the students received wounds, although not serious ones. The assistant himself, however, was so seriously injured in the hand, that he was at once taken to the hospital; and Professor Jacquemin was also wounded in the forehead and thigh.

OUR GREAT ONES OF THE PAST.

MEN OF THE BRITISH SCHOOL.—No. VII.

WILLIAM HARVEY.



Whatever view may be taken of the great revolution in England, whosoever may cry out Cromwell the Great! on one side, or Charles the Martyr! on the other, it will, we presume, be admitted that the Revolution was not one of pure politics, but of intellect and thought. In the period embraced between the death of James I. and the ascension of James II., we have in a word evidence of the brightest days of England's intellectual strife, her progress, her greatness. In this time, despite her political adversities, she became England, and an island was converted into a world.

Among the many great ones in that mysterious and magnificent section of the past, few hold a more prominent place in our biographical annals, than William Harvey—sun of his age in the Medical sphere; a man, like other men, in having limitations to his knowledge, fetters to his understanding, difficulties in his path, scorners in his rear; but unlike other men in having a full-blown thought in his brain, and in his hands a presentation to the world—not to his world, but to ours and our sons' world, and their sons; and so on, on and on, down the everflowing stream of time.

In the hope of arriving at some new fact, however small, throwing light on the life and character of William Harvey, we have spent more laborious hours of research than we care to recall; and, now it is over, we can faithfully turn about the saying, and say, "There is nothing new under the sun." Dr. Willis's learning challenges research, and in great measure wins. It is painful, truly, to play the copyist's part; but so it obtains in a measure; the satisfaction is, that many may not have seen the copies as we have.

Withal, there is one resource—we have the Harveian works. These tell their own tale, and we shall read their story without any reference to learned commentator; they are ours, and ours are our own.

A nice little literary treat, in the fencing line, has time out of time been got up in respect to the fact, whether Harvey was or was not born on the 1st of April, 1578. Nobody doubts the year, but some doubt the day, and declare, black upon white, that it was the 2nd of April, because forsooth it were impossible to suppose that a Harvey could be born when the sun in these parts was shining All Fools' day. Parbleu!

At all hazards, Harvey was born; and the lady who gave him birth was, in her maiden attire, one Joan Halke. His father was a Kentish yeoman, and his native village Folkestone in Kent. He was the first-born of his parents. He ran about for ten years, and then went to the grammar-school at Canterbury, where he remained till he was made fit for Cambridge; and in May, 1593, he was entered as a student at Caius College, with Physic before him as his profession. What he learnt at Cambridge besides the classics is not known, but in 1597 he obtained his degree of Bachelor of Arts, and left his University. He now went to Padua, the more efficiently to learn the science and art of Physic, and remained at his studies at this famous school five years, occasionally visiting Venice. At Padua he was the pupil of Eustachius Radius and Minodaus; but Fabricius was his most beloved master. Five years here passed. He took at Padua his degree of Doctor in Medicine and Surgery. Thus entitled, he returned to his native land, took up again his M.D. at Cambridge, and entering London settled down to practice. In 1604 he was admitted to the Royal College of Physicians; and in 1607 he was elected a fellow of the College.

It is clear that, in starting out in his professional career, Harvey had fewer difficulties to meet than most men who have become eminent in our science. A man who could afford to spend five years as a student in Padua, who could take up his degrees and honours at once, without any other trouble than the mere preparation for the ordeal of examination, must surely have had means of an ample kind. His parents, indeed, seem to have been persons of competence; and his five brothers, Thomas, Daniel, Eliab, Michael, and Matthew, being all merchants, carrying on trade with Turkey and the Levant, we have clear evidence that he entered professional life with a specimen of the root of all evil flourishing in his window sill. We may presume, further, that he had early in his career much personal influence, and that he took position and practice more speedily than falls to the lot of most Esculapians.

Whether in the morning or at the meridian of his life, history does not state; but some time, and not many years after his entrance into London, Harvey married the daughter of Dr. Lancelot Browne. This again shows prosperity and favour on his side, as Dr. Browne was a man of consequence in his day. In 1609 he applied for the office of Physician to St. Bartholomew's Hospital, then held by Dr. Wilkinson. In this contest he had the assistance of letters of recommendation from the King, and as his request was granted, he was temporarily elected to do work for Dr. Wilkinson. Wilkinson died the same year, and Harvey was elected in his stead.

The following letters referring to this election have been collected from the Journals of St. Bartholomew's Hospital, by Professor Paget, and are given in his "Records of Harvey":—

"Curia tent. Sabti xxv° die Februarii A° Dni 160$\frac{8}{9}$.
"In presence of S^{r} John Spencer, Knight, Psydent. . . .
[*and others.*]

"Mr. Dr. Harvey This day Mr. Willyam Harvey Docto of Phisycke made sute for the rev'eon of the office of the Physicon of this howse when the same shalbe nexte voyd, and bronght the Kinge's Ma^{tie} his l'res directed to the Gov'nors of this howse in his behalfe, and showed forthe a Testimony of his sufficiency for the same place under the hande of Mr. Doct^{r} Adkynson presydent of the Colledge of y^{e} phisytions and div'se others doctors of the auncientest of the said Colledge It is graunted at the contemplacon of his Ma^{ties} l'res that the said Mr. Harvey shall have the said office nexte after the decease or other dep'ture of Mr. Doctor Wilkenson whoe nowe holdeth the same wth the y'ly ffee and dewtyes therunto

belonginge, Soe that then he be not founde to be otherwyse imployed, that may lett & hynder the chardge of the same offiee, which belongeth thereunto."

"xxviii° die Augusti A° Dni 1609.

"Mr. Newman, Mr. Shaw . . [*and others*].

"Dr. Harvey Mr. Willm. Harvey Doct^or of Physick eame before the Gov'nors beforenamed and is contented to execute the office of the physicon of this howse untill mych'as next, w'h out any recompence for his paynes herein; which office Mr. Docto^r Wilkenson late deceased held. And Mr. Dr. Harvey beinge asked whether he is not otherwyse imployed in any other place which may lett or hynder the exeeucon of the office of the Physicon towarde the poore of this hospitall; hath answered that he is not, whearfore yt is thought fytt by the sayd Gov'nors that he supply the same offiee untill the nexte Court, And then Mr. Dr. Harvey to be a sutor for his admyttance to the said place accordinge to a graunt thereof to him heartofore made."

"Cur. tent. Sabti xiiii die Octob^r 1609.

"In presence of S^r John Spencer Knight, President . . . [*and others.*]

"Dr. Harvey This day Mr. Willyam Harvey Docto^r of Phisick is admytted to the offyce of the Physicon of this Hosp^ll, which Mr. Dr. Wilkenson deceased late helde according to a form^r graunt to him made and the chardge of the sayd office hath bene redd unto him."

"xxj° die Octob^r A° 1609.

"Mr. Baron Sotherton . . [*and others*].

"P. concess. Johis Spencer, milit. This day S^r John Spencer Knight sent his lre to the Gov'nors of this howse whearin is showed that Marten Lewellen the steward to this hospitall beinge indebtted to John Harvey one of his Ma^ties Footemen in the sum of li^ld x^s, the said John Harvey exhibited his peticon to the right ho^n. the L^d highe Threr of England and Sir Julyus Cesar Knight Chauncelor of his Ma^ties Court of Exchequer whose cause was referred by theire honors to the L^d Mayor & Alld'ren of this citty, And for that the said Lewellen is one of the officers of this hospitall my L^d Mayor & Court of Alld'ren have ordered that the Gov'nors of this howse doe cause him to ende the same; And they callinge the said ptyes before them, it appeared that the said Marten Lewellen is bound by his obligacon to Willyam Harvey Doctor of Phisicke brother of the said John Harvey, for the payment of the said debt of li^ld x^s at a day longe sythence paste; And whearas the said Marten Lewellen is to receave the y'ly stypend of x^ld p. ann. so longe as he shalbe steward of this howse It is ordered & agread for paym^t & satysfaccon of the said debt of li^ld x^s that the said y'ly stypend of x^ld p. ann. dewe to the said Lewellen soe longe as he shalbe steward to the hospitall be payed to the said Willyam Harvey, or his assignes by l^s quarterly in the yere untill suche tyme as the said debte of li^ld x^s be fully paied And that the said Willyam Harvey may notw^thstandinge p'ceade in law as well againste the said Marten Lewellen as his sewertyes John May elothworker, and Thomas Wood, vinten' unles the said p'tyes will confesse the accon & suffer a judgment theruppon and dischardge the ordinary ffees of the court w^thin one monthe next followinge which if they doe then a defeasaunce to be made betwene him and the said p'tyes, that noe execucon be layed uppon them or eyther of them unles default of payment be made as aforesaide."

"Cur. tent. Jovis xxviii° die Julii A° Dni 1614.

"In presence of Sir Thomas Lowe Knight Presedent . . . [*and others.*]

Dr. Harvey It is thought meate by this court That Mr. Dr. Harvey or his successor Phisicon for this hospitall, shall have the howses nowe or late in the tenures of M^rls Gardner & Dr. Bonham, with a p'cell of the garden nowe in the tenure of Willm Allen in Weste Smythfield after the expiracon of the lease sometyme graunted to Rob'te Chidley gent. which the said Willm Allen now holdeth And the same then to be devyded and layed forth at the discrecon of the Gov'nors of this howse, for so longe tyme as he shalbe Doctor to this howse, for such y'ly rent and uppon such condicons as this court shall thinck fytt."

It is clear from these letters that John Harvey, a younger brother of William, was one of the King's footmen, an office of honour in those times. This fact may account for the royal influence exerted in behalf of William in his Bartholomew's election, and for his introduction to Court subsequently, as Court Physician.

In 1615 Harvey was chosen to deliver the lectures on Anatomy and Surgery at the Royal College of Physicians. These lectures had been founded by Dr. Richard Caldwell. Caldwell was a Staffordshire man, was born in the year 1513, and died in 1585. He was a graduate of Oxford, and in 1570 was made President of the London College of Physicians. His contributions to Medical literature were few. One book of his, of little importance, remains; it is entitled, "Tables of Surgery." His only real reputation consists in his having founded the chair above named.

It is presumed that Harvey commenced his demonstrations of the circulation of the blood in the first course of lectures ever delivered by him at the Royal College, viz. in April, 1615. This may be so; the statement, however, is an historical hypothesis. It is, at the same time, clear that he, in succeeding courses, took pains to illustrate his labours on this subject more and more fully; for in his preface to the work on the motions of the heart and blood, he speaks of having demonstrated the views it contains for nine years, in his anatomical lectures at the College, and he appeals to the accomplished President and other members as witnesses of the truth of his explanations.

By the year 1623 Harvey had so far risen in reputation that he was chosen Physician Extraordinary to the King. Surely no other English king ever had so extraordinary a Physician. When James died, Harvey continued to hold the same office to Charles, from whom, as Dr. Willis observes, he received many favours and much assistance, we may say sympathy. As well as to the King, he was Medical adviser to Lord Bacon, and others of the illustrious of the time. His practice, however, was rather select than popular. He was too scientific for the mob—a novelist, forsooth! an uprooter of rottenness, and a simple truth speaker! As he gained the title of anatomist he lost the character of Physician. Had he lived now, it were the same.

It was not until the year 1628 that the great work on the motion of the heart and blood appeared. Its author had by this time matured his views; he was master of the subject; and in what he had to say, he could feel that every sentence was a demonstration. Perhaps nothing could have indicated the clearness of his judgment more than the pains he took not to issue into print before his designs were complete, and his own eye could rest on and take in the fulness of his own discoveries.

He was long teased to bring out what he had to make known. "Why don't you publish?" said his friends. "You will be robbed of your discovery," said others. "He has no discovery at all," exclaimed a third set, "he dare not publish." Tush, babblers, Harvey won't move for you; he has his intentions, and he will carry them out.

When the book at last came to light it was a demonstration so pure, so clear, so positive, that even now the man who shall have learned the circulation from his boyhood will find an inability to describe it with such precision and power. There is not a faltering step at any point. The argument is a pure specimen of practical inductive reasoning; and Dr. Willis ably observes that "had Lord Bacon written his 'Novum Organum' from Harvey's work as a text, he could scarcely have expressed himself otherwise than he has done, or given other rules for philosophizing than those which he has laid down in his celebrated treatise."

At this day it is very difficult even to shadow forth all the obstacles which stood in the way of the great anatomist, and the problem of the circulation. The doctrine of vital spirits, wrapt up in all the mysterious rags of mythology, had to be torn down. Mechanical arrangements, simplest of the simple, required an explanation to meet and supplant the subtle dogmas of tides and fluxes. A number of holes which did not exist between the sides of the heart had to be sealed up by man as well as by nature. The pulse-beat had to be disconnected from the respiration as its cause, and assigned to the heart. The so-called systole of the heart had to be turned into the diastole, and the so-called diastole into the systole. The chordæ tendinæ had to be proved not to be nerves but mechanical cords. The simultaneous action of the two auricles and of the two ventricles had to be made clear, the four motions distinct in point of place, the two motions distinct in point of time; and, again, the demonstrations of a circuit of blood, from left heart into arteries, from arteries into

veins, from veins into right heart, from right heart into lungs, from lungs into left heart, and so on and on continuously, had to be fully explained, or rather to be seen first and explained afterwards.

The mode in which the discovery was received was characteristic of all progress in the way of discovery. There was set number one, the friendly group, who at once believed and admired. There was set number two, rich in faith and physic, who believed because their betters did, but who, in acknowledging the discovery as curious, thought the author was a good anatomist, but perfectly ignorant of practice. There was set number three, including the snarls; a very numerous body in all times. These believed the natural fact because they could not help it; but they did not believe the man; so they went to work tracing the discovery back to Aristotle, Galen, and others of their favourite ancients, whose works they had often read before, but not until now with the profit of discovering the circulation. There was set number four, the orthodoxists, who neither believed the man nor the discovery—the man was mad and the discovery was bosh. These held their ground longest. Lastly, there was the canny lot, who waited to see what the majority would do and say; these waited long—in the fulness of time believed—and ended their lives with the exultation that, among all men, they of all men never denied the truth of the circulation.

(To be continued.)

PROGRESS OF MEDICAL SCIENCE.

Selections from Foreign Journals.

ON THE TREATMENT OF CHRONIC ECZEMA IN CHILDREN

By Dr. BEHREND.

Dr. Behrend states that he has many cases of more or less obstinately chronic eczema brought to his polyklinik. In some of these it is found on the head and face, in others on the extremities or on the genitals, but in very few on the trunk. The ages of the children have varied from seven months to seven years, while in a few cases even the period of puberty has been passed. These eruptions are very troublesome to both patient and practitioner, becoming obstinate and relapsing in proportion to the length of time that they have existed. A so-called crusta lactea, or an eczema of the scalp, occurring in a child of from eight to twelve months old, is easier of cure than is an eczema in a child of two years old, that itself originally was also only a milk-scall. It is a well-known fact that a secretion, originally pathological, may in time become a physiological one, or that which was originally a diseased condition may become necessary for the preservation of health. Hence arose the fears of metastasis in the minds of the older writers, when called upon to treat affections attended with considerable secretion, that had long continued. They were true observers, and their care upon this point was not without grounds; and Dr. Behrend cannot agree with those who think that all mere local affections of the skin, of however long duration they may be, may be suddenly dispersed, when this is possible, with impunity. Even crusta lactea has usually arisen from a too rich and stimulating diet, and requires general as well as local treatment, and a due regulation of the diet. When the affection becomes rooted into a locality, the skin there acquires secretory functions which are not so easily arrested. If we suppress chronic eczema by mere local treatment in one spot, it will break out in another, and so on. Local means are, however, of the greatest importance, and without them, by the aid of internal means alone, we shall seldom, if ever, be able to remove old eczematous or impetiginous eruptions. Such general means, partly acting by their derivative power, and partly by the specific effects they exert on the blood, must not be neglected. The local indications are the following:—

1. The separation of the scabs or crusts. This may be best accomplished by poultices and fomentations, the former being very applicable when the eczematous spots are limited, and are not situated on the head, face, or neck, where cataplasms should not be applied. It is a good plan to previously moisten the places where the poultices are to be applied with a solution of carb. sodæ (℥ii. ad ℥viii.) When large surfaces are covered with eczematous scabs, a water dressing is much to be preferred. Thin towels or pieces of linen are soaked in a solution of subcarb. potash (℥i. ad ℥vi. or ℥viii.), and then carefully applied around the whole eczematous part. Over these dry cloths or towels are laid, and the whole covered over with oiled silk and a bandage. This dressing is renewed every two or three hours, care being taken that the outer envelopes covering the wet ones be kept constantly dry. In a few days the scabs will all have separated. Pure water will not effect the separation like the solutions of potass or soda. The soda is somewhat milder than the potass, and in sensitive subjects, having an irritable skin, should be first tried. If the scabs are placed on the face, neck, or head, the application is not suitable, as the exclusion of the external air, which is essential to its success, cannot be so well accomplished as on the limbs. For these parts, the author therefore uses cod-liver-oil-soap liniment, made by the simple mixture of carb. pot. or carb. sod. with cod-liver oil (℥i. ad ℥i.), and with this the crusts are pencilled over night and morning, having been previously moistened with the solution of soda or potass already mentioned. After pencilling the parts with the liniment in the evening, they are covered with a silk cap, cravat, &c., to protect the bed-clothes. This is removed next morning, the parts are carefully moistened with the alkaline solution by means of a sponge or towel, and all the loose crusts are carefully removed. The liniment and the silk covering are then again applied, and so on again in the evening. This separation of the scabs is of great importance for the cure; for they are the chief cause of the constant itching and scratching, which excite new inflammation and secretion, and renewed formation of scabs. The scabs also prevent applications being made to the diseased surfaces. By their removal much has been already obtained, and we have then only to keep the inflamed surface constantly clean. For this purpose cataplasms are no longer required, but the application of the alkaline washes and the liniments must be continued. Usually after a week or a fortnight's, or sometimes only after two or three weeks' employment of this procedure, we have, in place of the scabby, itching parts, smooth, red, inflamed surfaces, which no longer itch, and are scarcely painful, but which, if left to themselves, would again produce secretion and scabs.

2. The second indication is, therefore, the removal of the inflammatory condition of the skin. One of the best means to this end is the application of a solution of ℥j. of acetate of zinc, and the same of acetate of lead in ℥viii. of distilled water, adding to this at the time of using it an equal quantity of strong chamomile infusion. To the extremities this is applied as the water dressing already named, while, when the eczema occurs on the face, etc., either portions of rag wetted with it are applied, or the parts are moistened with it several times in the day and night. In this way the inflammation may almost always be relieved. The chief difficulty is found in old obstinate cases of eczema, when a knotty condition of the cutis is found to be present, which gives to the finger passed over the surface the idea of numerous small tubercles. The knots are formed by the loosening of the texture of the cutis, and minute exudations produced by the inflammation. Each little knot requires to be touched with the nitrate of silver, which is a very tedious process, but they are usually speedily removed. If these knots are overlooked the eczema will certainly return.

3. The third indication is the restoration of its normal activity to the skin, after having relieved or moderated the inflammation, as indicated by its increasing whiteness and dryness. How this is to be effected will depend upon circumstances, such as the constitution of the patient or the presence of complications and predispositions, which will determine whether derivatives, exutories, or alteratives should be employed, or whether, as in the scrofulous diathesis, iodine or cod-liver oil should be had recourse to. The diet should for the most part be bland, all stimulating and luxurious food and drinks being forbidden. Meat should be sparingly employed, and various unwholesome articles of diet, such as cheese, fish, etc., should not be allowed. Free exercise in the open country air, and a residence at the seaside are especially useful. These means are further aided by applications to the skin possessed of a strengthening or tonifying effect, such as, especially alum, sulphate of zinc, sulphate of iron, the oleum cadinum, oleum Rusci, etc. If the eczematous child is at the breast, it should be weaned, or at all events its nurse

should be changed, or her system regulated by appropriate diet and aperients.

The practitioner must not endeavour to obtain any hasty cure, weeks and months being required where large surfaces have become accustomed to abnormal secretions. The cure should be gradual, or bit-by-bit.—*Journal für Kinderkrank.* Band xxvii. p. 323.

EXCERPTA MINORA.

Essential Oil of Valerian in Typhoid Fever.—M. Leausure states that this substance exercises an eminently "regularizing" effect. It re-invigorates the powers, raises the animal temperature, and restores the appetite. It relieves vomiting and diarrhœa by inducing sweating, which is abundant, and of a disagreeable smell. It sensibly modifies the cerebral symptoms, in one case relieving delirium tremens that was present. The dose is, in bad cases, a drop every hour, and, in milder ones, a drop every two or three hours.—*Gazette des Hop.*, No. lxxiii.

Quinine and Digitalis in Migraine.—M. Serres recommends the following formula:—Quinine, 45 gr., powder of digitalis, 15 gr., syrup, q. s.; in 30 pills, one every night at bed-time. An equivalent quantity of digitaline may be substituted. The digitalis facilitates and regularizes the menstruation.—*Rév. Med.*, June, p. 694.

Tannate of Zinc in Catarrhal Affections of the Eyes.—M. Bonnewyn observes, that this substance is highly useful in affections of the eye, accompanied by mucо-purulent secretion. He recommends the following formula:—Tannate, 30 grains, aq. dest. ʒvi., mucilage, ʒss.—M. The tannate may be prepared by saturating a solution of pure tannin with a recent and still wet precipitate of oxide of zinc. This is to be filtered and evaporated.—*Rév. Méd.*, June, p. 695.

Slow Absorption after the Iodine Injection in Hydrocele.—M. Velpeau, in one of his recent clinical lectures, alluded to the case of a patient in whom the absorption of the fluid that is reproduced after the injection did not take place until about two months and a half after the operation. He has found this new effusion persisting in several instances for three weeks or a month, and a cure still he effected when he feared a relapse had taken place; and he believes that in more than one case in which a second operation has been had recourse to, a cure would have taken place had it been waited for a little longer.—*Rév. Méd.*, May, p. 626.

On Oil of Hemp-seed for the Dispersion of the Secretion of Milk.—The Belgian journals some time since endowed this oil with almost miraculous power in dispersing the secretion of milk, when women from any cause were unable to suckle. M. Legroux instituted at the Hôtel Dieu several comparative trials between it and almond oil, and found that it exhibited no superiority over the latter. Camphorated sweet almond oil is the best application he is at present aware of.—*Gaz. des Hop.*, No. lxvi.

Anomalous Position of the Left Kidney.—On examining the body of a girl who died of meningitis, M. Aubé found the right kidney in its normal position; the left was placed immediately above the sacro-vertebral angle, encompassed by the two divisions of the aorta. A little flattened, its anterior surface was divided into three parts, by two depressions formed by the passage of two arteries, one coming from the primary iliac, and the other from the hypogastric. A third came from the aorta, a little above its bifurcation, and, like the others, entered the kidney, whence emerged the ureter and a single vein. In a case related in the tenth volume of the *Mém. de la Soc. de Méd.*, the kidney was found placed within the bifurcation of the aorta; and in another, related by Pacoud, it was found in the pelvis, between the bladder and rectum, receiving three arteries, and giving issue to but one vein.—*Gaz. des Hop.* No. lxvi.

Cooking by Electricity.—A curious experiment (says the *Courrier de Paris*) took place on Monday at St. Denis, at the residence of M. Gisquet, formerly prefect of police at the commencement of the reign of Louis-Philippe, and now oil-refiner. By means of an apparatus invented by M. Bullot, and in which electricity is the only agent, six pounds of beef were perfectly cooked in five minutes and ten seconds. Several trustworthy witnesses, watch in hand, verified this rapid act of cookery. At the end of the 310 seconds the boiled meat and the broth made from it were tasted, and both were found to be excellent, although a little too salt—a fault, however, not attributable to the apparatus.

GENERAL CORRESPONDENCE.

CLASSIFICATION OF INSANITY.—DR. NOBLE AND DR. MONRO.

[To the Editor of the Medical Times and Gazette.]

Dr. Noble presents his compliments to the Editor of the *Medical Times and Gazette*, and will feel obliged by his giving insertion to the subjoined correspondence.

Manchester, July 4, 1857.

No. 1.

Manchester, July 2, 1857.

Dear Sir,—In looking over your review of the progress of Psychological Medicine, in the volume just issued of Ranking's Half-yearly Abstract, I have noticed that you refer to a classification of cases of insanity in the categories Emotional, Notional, and Intelligential, as one that is offered by Dr. Monro; and that you do not so much as mention myself—its real author. I am the more surprised at this proceeding on your part, as Dr. Monro himself, in the very papers you cite, does me more than justice,—not only adopting the classification as from myself, but giving to it a measure of commendation which I should not have ventured to claim.

My division of cases of insanity was instituted to facilitate instructional exposition, and it arose logically out of certain views of cerebral philosophy which I had worked out for myself—views which pervade the whole of my Elements of Psychological Medicine—an acquaintance with which you evince by having placed it first on the list of works with which your article is headed.

I cannot doubt that you have acted in this matter simply from want of thought, and I feel confident that, when the error is pointed out, you will be anxious to repair it. Under such circumstances, I must request permission to use whatever answer you make to this communication, in any way that I may deem just to myself.

I am, dear Sir,
Yours very truly,
Daniel Noble.

C. Lockhart Robertson, Esq. M.B., Cantab.

No. 2.

1, Charles-street, Berkeley-square, July 3.

Dear Sir,—I much regret the apparent omission of your name in my notice of Dr. Monro's paper, of which you complain.

Dr. Monro had so fully admitted your claim, that being engaged simply in a notice of his papers, it did not strike me to state that you were the author of the division of insanity into Emotional, Notional, and Intelligential, as I should otherwise have done.

I write hastily amid a press of letters the day after our annual meeting, but am anxious not to lose a post in assuring you how far it was from my intention to give to Dr. Monro any honour due to you. I am, dear Sir,

Yours sincerely,
C. Lockhart Robertson.

D. Noble, Esq., M.D., Manchester.

No. 3.

Manchester, July 4, 1857.

My Dear Sir,—I should have deemed reclamation, probably, to be unnecessary, had your Retrospect been published in the *Asylum Journal*—the periodical in which Dr. Monro's papers appeared. But, you know, it has but a moderate circulation, and this, too, limited very much to a special class of practitioners; while Ranking's Abstract, as you are aware, is read very generally by the Profession at large. And how many persons in their compilations will be guided by statements contained in this latter publication, in which you distinctly affirm that the classification in question is one that has been "*offered* by Dr. Monro."

I refer to these things simply as showing that the statement was one which I could not, in justice to myself, have done otherwise than notice.

But I am bound to thank you for the full, courteous, and gentlemanly acknowledgment which you have made; and am,

My dear Sir, yours sincerely,
Daniel Noble.

C. Lockhart Robertson, Esq., M.B. Cantab.

THE PROFESSION IN FRANCE AND ENGLAND.

[To the Editor of the Medical Times and Gazette.]

Sir,—Allow me to take a cursory view of Medical legislation in this country, which I think may not be uninteresting at the present moment, whatever may be the fate of the Bills before Parliament.

Formerly the Faculty of Medicine in Paris, the French College of Physicians of the day, admitted of no rival, and held by law the exclusive privilege of licensing to practise in Paris and its suburbs. This selfish right, considered to-day feudal and barbarous, aroused the indignation of the school of Montpellier, the graduates of which University argued that the pretensions of the Faculty of Paris had no foundation, unless it were admitted that it alone possessed the monopoly of science, and that the diseases of the capital were different from those observed in other parts of France. They pleaded the scientific reputation of their school, and concluded that the title of Dr. was a sufficient guarantee for the population of Paris; and in order to give effect to their opposition they organised an association, called "La Chambre Syndicale," obtaining permission to assemble in their meeting-room by a decree of the Council of State, dated 30th of December, 1668. Every member of this Society pledged himself, after the verification of his diploma, to dress in an ordinary manner, to speak French as correctly as possible, and to make their visits on foot, or, if necessary, in a sort of omnibus then in use. We perceive from those rules that Medical men even in the seventeenth century were reluctant to tolerate an aristocracy in their order, apart from that legitimate distinction which is conceded to talent and merit. However, the Faculty of Paris triumphed over those early reformers, and repudiated that equality of rights which the Government subsequently established. In the Feuilleton of "La France Médicale," under the head of "La Chambre Royale de Médecine," the President of La Chambre Syndicale, Saint-Germain, is represented in the salon of Ninon de Lenclos, rue des Journelles, where Molière, La Fontaine, and all the *beaux esprits* of the epoch were habitually entertained, without distinction of rank or fortune. Every one upon this occasion remarks the taciturnity and gloom of the Dr., and the whole company, men and women, insist upon being told the cause of his sorrow, when he answers gravely, "A decree of the king's council not only breaks up the assembly of the Doctors of Montpellier, which I had established in my house, but more than that, interdicts me the practice of medicine in the good town and suburbs of Paris." Such is the relationship existing at the present time between the corporation of Physicians and British Universities, a relationship which in times of liberty and progress cannot last.

After an angry struggle during two centuries, at length came the Revolution, when the republic united the schools of Montpellier and Paris; and then followed an imperial decree of the 17th of March, 1808, which completely closed the reign of Medical corporations in France. Article 1 of that decree says, "Public instruction throughout the empire is confided exclusively to the University." By Article 6, the faculties of Medicine were made to form one of the five orders of which the University is constituted. Here we have the State taking the legislation of medicine into its own hands, and thereby procuring for the Profession that peace, harmony, and justice, which it had been unable to accomplish for itself. Whether a man graduates in Paris, Montpellier, or Strasburg, he is now free to practise in every part of the French dominions, by virtue of one diploma which qualifies him for the exercise of every department of the Profession. In large towns practitioners devote themselves to a particular branch of Medicine. In the country they cannot, being isolated, and their patients being fewer in number. They are there obliged to practise Medicine, Surgery, and Midwifery; and the greater extension of their labours required by the exigencies of their position is not allowed to operate in lowering them in professional status beneath their more fortunate confrères—the adoption of any one line of practice being left to taste, aptitude, and the natural course of circumstances. The University instituted a uniform preliminary and professional examination; and considering Medicine collectively as one science, regulated and defined the means by which all those embracing it should be properly instructed in the various elements of which it is composed. Let us glance at the formula of examination prescribed:—"Natural History, Physics, and Medical Chemistry; Anatomy and Physiology; Surgical and Medical Pathology, and Operations (performed by candidates at examination); Hygiène, Medical Jurisprudence, Materia Medica, Therapeutics, and Pharmacy; Clinical Medicine and Surgery, and Midwifery."

The State thus guarantees for society a corps of efficient Medical advisers; and, at the same time, affords legal protection to the latter—punishing by fine and imprisonment whoever usurps the title of "Dr.," and in a minor degree any one who attempts practice even without that pretention. Instead of closing the door of justice against Physicians, the Government ranked their claims, in case of debt, amongst the "créances privilégiées." Also, through a humane consideration for the pecuniary resources of the student and his parents, the law, while providing every possible means for ensuring a sound Medical Education, limits all expenses to 1,000f.,—with 100f., or four pounds, for the stamp or diploma of Dr.; in all, £44. Without that benevolent provision, combined with the Concours, many of the brightest ornaments of the French school, now enjoying a world-wide reputation, would in all probability have never been heard of.

Registration of the qualified is a duty performed by the Minister of Public Instruction through the Préfets of Departments.

We can easily understand the difficulty of putting into execution in England a legislation of this description, so foreign to the genius and traditions of the country; yet, while avoiding a centralization of power, and respecting our national institutions, we should take care not to run into the opposite extreme, of perpetuating abuses by abandoning the destinies of a noble Profession, and the dearest interests of the community, to a divided and irresponsible authority.

I am, &c.

Stephen S. Moriarty, M.D.

Dieppe, July 1, 1857.

PAPER SPLINTS—GLYCERINE—PHOTOSCOPE.

[To the Editor of the Medical Times and Gazette.]

Sir,—Will you allow me to call the attention of the Profession to a few practical hints, which I have found of great utility in the practice of the Northampton General Infirmary.

I have for the last fifteen months been in the habit of putting our fractured legs up in pasted paper, when the swelling has subsided, which enables our patients to leave their beds at the end of ten days or a fortnight. I do not claim any originality for the idea, which I saw practised in Paris, but as I have not yet observed any notice of it in England, and have found it so very useful, I should be glad if it was more extensively known. The advantages it possesses over the starched bandage, of which it is a modification, are, that sloughing from over-pressure is impossible, as on attempting to pull the paper too tight it tears, and the materials for it are always at hand. My mode of procedure is as follows:—I prepare forty or fifty strips of brown paper, 1¼ inch wide and 16 long; these are all smeared with thick paste, and applied to the limb in the ordinary manner of strapping; three layers are applied, a light bandage over all, and then left to dry, supported by sand-bags; the strips are all pasted before any are put on; in twenty-four hours it forms a very hard, light case, exactly applied to the limb, which affords perfect protection during the reparative process. It must be well soaked before removal.

I have lately mixed ʒss. of glycerine with ʒj. of extract of belladonna, when I have used the latter for dilating the pupil; it renders it pliable and elastic, and does not produce that disagreable tightness complained of when the simple extract gets dry and hard.

I have also used a darkened tube in the diagnosis of hydrocele for the last twelve months, and can recommend it as being extremely useful. That which I employ is of tin, blackened within, 7 inches long, 1¼ in diameter at its larger end, and tapering to ¾, where it is furnished with a wooden eye-piece. In sunlight, or in a tolerably translucent hydrocele, a candle can be dispensed with, as sufficient light makes its way through to reveal the nature of the swelling.

Having now, by the kindness of the Surgeons of our Hospital, Messrs. Terry and Mash, given the foregoing modes of procedure a very extensive trial, and having been very suc-

cessful in their results, I am anxious that others should become acquainted with them, and suggest any improvements which may occur to them. I am, &c.

June, 1857. JOHN C. SAVERY, House-Surgeon.

REPORTS OF SOCIETIES.

EPIDEMIOLOGICAL SOCIETY.

MONDAY, MAY 4.

Dr. BABINGTON, President, in the chair.

Dr. M'WILLIAM read a paper by Josi Fernandez du Silva Leào, Surgeon in the Portuguese Navy, on

THE CHOLERA EPIDEMY AT THE ISLAND OF FOGO, IN THE CAPE DE VERDS.

The author, after giving a brief sketch of the topography, meteorology, and endemic diseases of the island, proceeds to state that, in the year 1854, the sanitary condition of the island was as usual, and there were but few cases of country fever in the months of October and November, and that this favourable state of things continued until the month of July, 1855, when cholera appeared in the island. On the 3rd of June, 1855, a Sardinian vessel, called the Corea, dropped anchor in the port of San Philip. By the ship's health-bill it appeared that she was a barque of 273 tons, commanded by Petro Bazzano, with a crew of twenty-two men; that she sailed from Savona on the 31st of May, on a voyage to Monte Video and Lima; and from an unsealed document in manuscript attached to the Bill of Health it further appeared that, at the time of her sailing, she had 240 passengers on board. The officer in charge of the sanitary service of the port declared that the vessel having what is called a "Clean Bill of Health" was sufficient to justify his admitting her to "pratique," and he did not visit her. She was, in due time, boarded by the Customs authorities, and a tidewaiter, called Anselmo Pires, was left on board of her. The captain soon after obtained permission to land his passengers and their luggage, having previously stated that his object in coming to the island was to obtain provisions and water. On the 1st July, 119 passengers were landed and lodged in three central houses, and in the barracks of the town of San Philip. On this day and the day following, the contents of a great number of mattrasses were thrown from the ship into the sea, and the captain of the ship seeing the natives collecting the straw, warned them against the danger of using it. The passengers on landing had, most of them, a pale, sickly appearance, and many were observed to be suddenly attacked with diarrhœa in the public streets. They complained much of thirst, and begged water from door to door. Some of the inhabitants, moved with compassion for the distress of the passengers, gave them shelter and hospitality. Amongst these benevolent persons the daughters of a gentleman, named Alrea, were conspicuous. Seeing a woman, one of the passengers, in distress, with two children, they called them in; and while one of the ladies had the youngest child in her arms, it was attacked with vomiting and purging, and fell into a state of collapse. The only Surgeon in the place was called, and the child, after lying in extreme danger for some days, recovered. The child was attended by Mr. Alrea's daughter and his slave woman Noberta. On the 2nd July, the remainder of the passengers were landed, the captain authorizing his consignee to diet 166 persons; and although he allowed him to supply beef, mutton, rice, and wine, he strictly prohibited their being served with fish, vegetables, or fruits. At the same time he had the hold of his ship whitewashed and disinfected. An inspection of one of the houses where the passengers lived was made on July 3 by a first-class Naval Surgeon, De Souza, and he found an adult and child with diarrhœa. On the next day he repeated his visit, but neither the man nor the child was there. Both had been removed to the ship. On the same day, while a few of the passengers were attending mass, one of them was attacked with vomiting and purging. He also was seen by the Surgeon; but, like the others who had been similarly attacked, was at once taken back to the ship. In a few hours afterwards a passenger begged water of Mr. Monteiro for his son, who had been seized with the sickness. This child also was removed on board. In this way children disappeared from the town every day. According to the evidence of the Custom-house officer, Pires, there were two classes of passengers on board the Corea, of whom 166 were landed and 25 remained on board. Those who remained on board were constantly going to the privies, and the captain took every pains to conceal the nature of the disease under which the passengers laboured. He frequently saw passengers lying on their beds on deck at night, and in the morning the bed alone remained. He also corroborated the evidence of the people on shore with regard to the great number of mattrasses being emptied of their straw when the ship first arrived. He added, that the passengers precipitately returned on board on July 6, when the Corea immediately put to sea. Dr. Leào concludes, from the circumstances narrated, that when the Corea arrived at Fogo, there existed among her passengers a grave disease, of which the predominant symptoms were vomiting and purging; that the vessel, on her arrival at Fogo, had not the number of passengers originally embarked, inasmuch as she landed 166 at Fogo, and only 25 remained on board, thus leaving 49 out of 240 to be accounted for; that every precaution was taken to conceal the nature of the disease under which the passengers laboured, on shore as well as on board ship, the Surgeon in the town having been but rarely called, although it was notorious that many of them were very ill; that the captain landed his passengers, and maintained them at his own cost, and then proceeded to disinfect his ship by means of lime and vinegar. Dr. Leào continues: "Based on information from the most important and trustworthy persons in the town, I have described the state of health in the island before the arrival of the Corea. I have told what was the state of the crew of that vessel, and I have detailed the nature of the intercourse between the ship and the shore; upon the same authority let me now recount what occurred at this time among the inhabitants of the port of San Philip." On July 3, Noberta, the slave of Mr. Alrea, who, it may be recollected, nursed the child of a passenger taken ill on the 1st of that month, was herself attacked. Noberta's symptoms were vomitings, diarrhœa, evacuations, at first white coloured, afterwards watery, or rice watery, suppression of urine; dull appearance of the skin, particularly near the eyes, nose, and mouth; complete alteration of the features; rapid wasting of the body; profuse cold perspiration; contraction of the skin of the hands and feet, as if they had been soaked in water; cramps in the legs, with pains and screaming; excessive depression, but retention of the intellectual faculties; change of the voice, and death. On the following day Claudio, the slave of Mr. Antonio Medines, who on the preceding evening had visited Noberta, and who had lived on terms of intimacy with some of the passengers, was attacked and died on the 8th, making the second case among the inhabitants. On that and the following day, several others were attacked; and now it became known throughout the town, that a number of the inhabitants were being seized with a grave disorder. After describing the confusion and misery that accompanied the spread of the disease throughout the town, during which the other parishes of the island were for some time quite healthy, Dr. Leào concludes his paper by following up the course of the disease from San Philip, and its mode of introduction into the districts of San Lorenzo, San Katharina, and Nostra Senhora d'Aguila, all of which were in process of time ravaged by cholera. Reasoning from the healthy state of the island before the arrival of the Corea; from the existence of a grave form of alvine disease soon after intercourse was established between the ship and the shore; from the first attacks being among those of the inhabitants who were known to have been brought in contact with the passengers; and from the manner in which the disease was communicated to the other districts of the island. Dr. Leào comes to the conclusion that the cholera which ravaged Fogo in 1855 was introduced into that island by the Sardinian barque, Corea.

Dr. M'William read some extracts from the report of Dr. Agosthino Josè Ramos de Carvalho, chief of the Medical Staff, and president of the Board of Health at the Cape de Verd islands:

"The sanitary state of the province at the beginning of the month of July, 1855, according to the reports that were addressed to me, was as usual for the season, except that there

were in some of the islands more or less cases of vomiting and bilious diarrhœa, but of a slight and benign description, to be attributed to inexplicable influences of increase of heat, change of wind, humidity, electricity, and other atmospheric circumstances, which arise at the end of the dry, and beginning of the rainy season. Suddenly, before there was any rain, without the presence of stagnant waters or pools, change of food, or any other change from the usual state of the inhabitants of the island of Fogo, there appeared in the town of San Philip, in that island, and on th 3rd July, a case of morbid vomiting, serous diarrhœa, in appearance like rice-water cramps, suppression of urine, decomposition of the features, and in a few hours death. To this there followed other cases on the following day. Dr. Carvalho then details the history of the Corca, and the spread of the cholera on the island, with the means taken to alleviate the sufferings of the people, and the measures that were adopted to prevent the extension of the disease to the other islands of the archipelago.

Dr. M'William also communicated some observations by Dr. George Lee, of Rio Janeiro, on

THE EPIDEMIC CHOLERA, AS IT APPEARED IN RIO DE JANEIRO DURING 1855.

Dr. Lee commences by stating, that during a residence of twenty-six years in Rio, he had never seen but one well-marked case of Asiatic cholera until the present outbreak, the first case of which was observed on the 19th July, 1855. The exceptional case to which Dr. Lee referred occurred in the year 1849 at San Domingo, a small and very clean town, on the shore of the bay opposite to the city of Rio, and distant from it about three miles. The subject was an elderly unmarried lady, and she was seen by the late Dr. Curtis, who perished during the yellow fever epidemy. Finding it to be a case of cholera, a disease then unknown to the oldest Practitioner in the place, Dr. Curtis remained several hours with his patient, when she appeared out of danger, and then returned to Rio, where he gave Dr. Lee an account of the symptoms, which were—violent abdominal pain, incessant diarrhœa and vomiting, the dejections having the appearance of dirty rice water; cold skin, pulse scarcely perceptible, cramps, countenance haggard, sunken eyes, etc. On the following morning the patient was seen by Dr. Lee, and he found her powerless, cold, insensible, and blue to the tips of her fingers and toes. Shortly after Dr. Lee's arrival she died. From this time until July, 1855, no case occurred in Rio and its neighbourhood. Dr. Lee then proceeds to state, that during the earlier months of the epidemic of 1855-6, he treated a great number of cases of severe diarrhœa, but of marked cholera only thirteen cases; of these, two only had proved fatal. Dr. Lee then enters upon a detail of cases, and of the treatment he employed. He refrains from giving an opinion as to the nature and causes of cholera, further than that poverty, bad food, bad clothing, filthy habitations, dissolute habits, etc. there as elsewhere seemed to predispose to the disease. "At the same time," observes Dr. Lee, "when I compare the present state of Rio with what it was twenty-eight years ago, and contrast its former salubrity while reeking with filth and impurities of every conceivable kind, with its sickly condition, scarcely ever free from some epidemic disease, although greatly improved in cleanliness, well-paved, well supplied with water, well lit at night with gas, and various other hygienic measures adopted, I feel myself forced to look beyond the local condition of the city for the origin of yellow fever and cholera, which have lately come among us." Dr. Lee concludes an interesting paper by some remarks on the prevailing diseases besides cholera, and on the meteorology of the period. The following table shows the total mortality from cholera in Rio de Janeiro from the 19th July, 1855, to the end of April, 1856:—

	Population.	Deaths.		
		Males.	Females.	Total.
Free population, including whites and free coloured	155,864	1463	875	2338
Slaves	110,602	1815	698	2513
Uncertain	..	30	2	32
Total population	266,466	3308	1575	4883

Dr. M'William also read a paper, by Samuel Vines, Esq., H.M. Consul at Para, on

CHOLERA AT PARA, IN THE BRAZILS, IN 1855-6.

This voluminous and important document contains very ample replies to the queries issued by the Cholera Committee, and has been handed over to the Secretary for the use of the Committee.

A discussion followed the reading of these papers, in which Dr. Waller Lewis, Dr. Milroy, Dr. Snow, Dr. Greenhow, Dr. Camps, Dr. Tripe, Dr. Babington, and Dr. M'William took part.

THE PATHOLOGICAL SOCIETY.

Tuesday, May 19.

(Concluded from Vol. XXXV. p. 653.)

Dr. Watson, President, in the chair.

Dr. Priestley read, on behalf of Dr. Bristowe and himself, a report of the specimen shown by Mr. Hutchinson at a former meeting, of

RECURRENT FIBROID TUMOUR OF THE UTERUS.

They were quite satisfied that the growth was not an ordinary fibrous tumour, and at the same time that it did not bear any close similarity to the several forms of cancer. About the latter point, however, they felt more of doubt than the former. Its chief constituents under the microscope were nuclei and fibroid tissue. A detailed report was sent in, but was not read at length. Drawings from the microscope were also exhibited.

Mr. Henry inquired of Mr. Hutchinson whether the conclusions advanced by the reporters agreed with his own.

Mr. Hutchinson replied that they did exactly. He thought that as the tumour consisted of fibroid elements, had manifested a power of very rapid reproduction after two partial removals, and as it was distinct from cancer in not having affected any other organ in the body, it ought to be classed with the "Recurrent Fibroids," being essentially similar with those of the latter class, which had been observed in other organs. Although he believed the present was the first specimen which had been described as such, yet he was far from thinking that the disease was less frequent in the uterus than in other parts, and believed that when the cases had been collected together we should find that the recurrent fibroid constituted a distinct and well-characterised species of uterine polypus.

Dr. Priestley showed

A CAST AND DRAWINGS OF A FŒTUS BY INCLUSION,

which had been forwarded to him by Mr. Richardson, of Stockton-upon-Tees, for that purpose. The subject of the malformation was a patient of Mr. Richardson's, of Middlesborough, and is now about two years old. The appearance of the child at birth caused no small wonder among the inhabitants of the district, and it was currently reported as "a child born with a tail," in the columns of the provincial papers. The included fœtus which had been thus misconstrued consisted of an oval flattened tumour, the size of two fists, with several depressions on its surface, and was attached, according to Mr. Richardson's notes, "to the lower part of the body between the os coccyx and the anus." From the upper extremity of the tumour grew a long hook-shaped appendage, which proved to be a finger terminating with a nail, and having the rudiment of a second digit projecting as a tubercle from its base. The mass was removed three months after birth by a ligature, having doubled its size in that space of time. The tumour contained one irregularly formed bone, which might represent a humerus or other long bone, the rest consisted chiefly of fat and fibrous tissue. The mass had been forwarded to Professor Simpson for dissection, who it was hoped would ere long publish a detailed account of its structure and relations.

Mr. Hutchinson exhibited

EXUDATION CASTS FROM THE INTESTINES.

The patient by whom they had been voided was a lady under the care of his friend, Dr. Dunhill, of Cranbrook, and

had been under observation for several years. Her age was 40, and for twenty years past she had not enjoyed good health. One of her earliest symptoms was diarrhœa, and after it a spinal affection. In 1849 and 1851 she had repeated diarhœas, and in 1853 had this for four months together, and then passed quantities of blood, and what she described as "brown thick skins, four or five inches long." In 1854 these "skins" still came away, and were larger than on former occasions. They never ceased to pass for more than a few days at a time. At this time she had constant pain in the epigastrium, and daily vomiting of mucus and pus streaked with blood, occasionally of blood alone. There were also hysterical symptoms. The pain afterwards was located in the left iliac region, and during the last eighteen months has been referred to the right iliac region. Previous to voiding any of the larger casts the pain here becomes increased for a few days. On some occasions the casts have been thirty-three inches long, and they are usually perfect tubes. At one evacuation enough to fill a quarter of a pint will come away. Various plans of treatment had been tried throughout this prolonged and very distressing illness, but hitherto without benefit. A year's trial of alteratives, and a strictly farinaceous diet was made, and after that of counter-irritants. A large blister on the abdomen was kept open nearly six months. At the suggestion of Professor Laycock, of Edinburgh, a trial of pitch pills had been made. The mildest aperient increases the pain and the number of cysts voided, and she is also always worse after eating much meat. The specimens before the Society consisted of casts voided at different periods during the last two years, the most recent having been obtained within a day or two. They were tubes, and many of them capable of receiving two or three fingers. They were soft and slimy, but of sufficient tenacity to allow of their being lifted about. Under the microscope they showed epithelium and exudation cells entangled in a matrix of fibrine. In several instances Mr. Hutchinson had found such abundance of a certain fungus that he had been inclined to think it of importance, but further search had not confirmed the supposition. He had brought this case before the Society because it well exemplified a rare form of disease, one of which he had seen but few examples, and which had not hitherto been discussed by the members. He should be much obliged to any member for a suggestion as to its cause or treatment.

Dr. O'Connor mentioned having seen several cases, chiefly in children, and recommended turpentine.

The President, in one case under his care, had known advantage follow the use of creosote. It was undoubtedly a very intractable disease.

A Member stated he had once had a lady under his care for this symptom, in whose case he had tried everything that seemed likely, and had failed to obtain any benefit. Some months after having left off treatment, she called on him to say that she had been cured by another practitioner. The successful remedy had been an issue in the side.

Dr. Andrew Clarke had had several cases under his care, chiefly in delicate children. He had more than once carefully examined the casts with a microscope, and regarded them as chiefly epithelial.

After some further conversation, Drs. Wilks and Andrew Clarke were appointed to further examine the specimens, as to their elementary formation, and report to the first meeting of the Society next session.

At the conclusion of the meeting, the President made some short but appropriate observations, on the end of the session. He was very glad to be able to inform the members that they should meet next time in the much more commodious rooms of the Medico-Chirurgical Society, in Berners-street. The Society had become too numerous for the George-street rooms, and it was high time they had more spacious premises. He thought that the now concluding session had, at least, equalled in successful labour any of the preceding ones, and had no doubt that the volume of "Transactions" would be a very valuable one.

The meeting then adjourned.

The Yellow Fever was raging dreadfully in the West Indies amongst the shipping. The Atrato had had forty cases and twelve deaths. About fifty deaths had taken place amongst the Royal Mail Company's fleet. At St. Thomas the Hospital was quite full with yellow fever cases.

PARLIAMENTARY INTELLIGENCE.

HOUSE OF COMMONS.

Petitions.

By Mr. C. Gilpin, from inhabitants of Northampton, for the repeal of the law enacting compulsory vaccination; by Mr. Alcock, from the South-Eastern Branch of the Medical Association, praying for a redress of grievances and in favour of Mr. Headlam's Bill; by Colonel Boldero, from the Medical officers of the Chippenham Union, and by Major Stuart Wortley, from the Medical officers of the Honiton Union. Petitions praying for a redress of the grievances of Medical officers of Poor-law Unions were presented by Mr. Warren, from the Medical officers of the Midhurst Union; by Mr. C. Forster, from the Yorkshire branch of the Medical Association; by Mr. J. T. Norris, from the Medical officers of the Abingdon Union; by Mr. Moody, from a Medical officer of the Shepton Mallett and Langport Union; by Captain Gray, from the Medical officers of the Bolton Union; by Sir. A. Elton, from Dr. Lloyd, of Bath, in favour of the Medical Bill; by Major-General Windham, from the Medical officers of the East and West Flegg Poor-law Union; by Colonel Gilpin, from certain Medical officers of Luton Union, Bedfordshire; by Mr. Du Cane, from the Medical officers of the Halsted Union; by Mr. Cowan, from the Lord Provost, Magistrates, and Council, of the city of Edinburgh, praying that the Lunatic Bill (Scotland) may be delayed till next session, in order that the country may have the opportunity of deliberating and pronouncing upon its provisions; by Mr. H. A. Bruce, from the Students in Medicine of St. George's Hospital, for a revision of the duties and remuneration of Union Medical Officers; by Mr. Dillwyn, from Medical Officers of the Swansea Union; and by Mr. Dodson, from the Medical Officers of the Eastbourne Union, praying for a redress of the grievances of Poor Law Medical Officers.

Treatment of Lunatics.

Mr. Drummond asked the Secretary of State for the Home Department what report he had received from the Commissioners of Lunacy with regard to the complaint of Thomas Tilley, that he had been confined in an iron jacket in a dark room for seven weeks in the Beverley Retreat for Lunatics near York, to which commissioners the said complaint was sent for investigation?

Sir G. Grey said,—Several months ago he received a complaint of the treatment to which Thomas Tilley had been subjected in the Gate Helmsley Lunatic Asylum, near York, which he referred forthwith, according to the usual practice, to the Commissioners in Lunacy for the purpose of investigation. Two of the commissioners were immediately deputed to make a full inquiry into the case, and they reported the result to the Board. The Board sent him extracts from that report; but a copy of the entire report with minutes of the evidence was sent to the committee of visitors of the asylum. The extracts received by him confirmed the statements as to the use, in the case of this patient, of means of restraint and other treatment, which the commissioners strongly condemned; but it did not appear that the confinement had been in a dark room, or had lasted so long as seven weeks. The iron jacket, too, did not belong to the asylum, but had been brought to it with a patient from York. It also appeared that the conduct of the patient was of the most violent description, and that he had escaped no less than six times, and while at large had committed great acts of violence. The commissioners stated other extenuating circumstances, speaking favourably of the general management of the asylum, though they passed a severe censure upon the conduct adopted with regard to this patient. He was informed that the commissioners had since again visited the asylum, and satisfied themselves that due care was now taken against the recurrence of any similar practices; and he had no doubt the inquiry would have produced a very beneficial result.

Board of Health.

Mr. Palk rose to ask the Secretary of State for the Home Department whether it was the intention of the Government to bring in any Bill to remedy the defects proved before a Select Committee of the present Board of Health? The Bill under which the Board of Health was established was passed in 1848. That measure had been condemned over and over again. It had been submitted to the consideration of com-

mittees, and various members of the present Administration had attempted to make such modifications and alterations in its provisions as might lead to its adoption as a permanent measure. Those attempts had failed. He wished to ask if the right hon. gentleman would state to the House whether the Government was prepared to carry out the pledge under which they obtained a renewal of this Bill for one year, or whether that pledge was made merely to gain time?

Sir G. Grey said he might state that a Bill had been prepared for materially amending the Act of 1848, although he could not admit with the hon. member that that Act was condemned by the Select Committee.

MEDICAL NEWS.

Royal College of Surgeons.—The following gentlemen, having undergone the necessary examinations for the diploma, were admitted members of the College at the meeting of the Court of Examiners on the 3rd instant:—

Beach, H. J., Cheltenham.
Blasson, W., Billingborough.
Bury, G., Mitchelstown, co. Cork.
Cooper, T. J., Canterbury.
Evans, M. B., Glasgoed, near Oswestry.
Lawrence, A. G., Carmarthen.
Pickford, W. H., Brighton.
Thompson, J., Hull.
Watson, W. S., Southampton-street, W. C.
Wilkes, G., Stepney-green.
Yarde, W., Lamb's Conduit-street.

Apothecaries' Hall.—Names of gentlemen who passed their examination in the Science and Practice of Medicine, and received Certificates to Practise on July 2, 1857:—

Craddock, Samuel, Shepton Mallet.
Day, William Henry, Stratton, near Swindon, Wilts.
Druce, William, Melbourne, Victoria.
Frieker, Louis Hugh, Southampton.
Jones, Richard, Aber Corris, North Wales.
Smith, William John, North Shields.

DEATHS.

Bealey.—On the 29th June, at No. 2, Axford's-buildings, Bath, William Bealey, M.D. Edin. 1806, in the 77th year of his age.

Jeffrey.—On July 3, at Paisley, William Jeffrey, M.D.

Waudby.—On the 15th ult., on board the Company's steam-ship Alma, of intermittent fever, Samuel Waudby, M.R.C.S. Eng. 1842; L.S.A. 1841., aged 37, Surgeon in the Peninsular and Oriental Company's service, and late House-Surgeon at the Hereford Infirmary, during fourteen years.

West.—On the 26th June, at Hastings, George West, of No. 5, Northampton-place, Hackney-road, London, M.R.C.S. Eng. 1833; L.S.A. 1834; L.S.A. Dublin 1831, third son of Jacob West, Esq., Loughlinstown House, Dublin, aged 55.

Wickenden.—On July 5th, at Birmingham, Joseph Wickenden, M.R.C.S. Eng., and L.S.A. 1816; F. Geo. Soc., aged 62 years. He took a leading part with Sir Charles Hastings, M.D., in the formation of the Provincial Medical and Surgical Association, and was a member of its General Council up to the period of his death.

APPOINTMENT.

Dr. Daly, Lecturer on the Practice of Medicine in the Hull and East Riding School of Anatomy, was appointed Physician to the Hull General Infirmary on June 26, in room of Dr. Horner, resigned.

TESTIMONIALS.

A handsome silver inkstand was, on Thursday, July 2nd, presented to Dr. Branson, of Baslow, on his retirement from practice in Sheffield, by some of his Medical brethren in that town, to testify their high estimation of his character, and sincere regret at his departure from amongst them.

Mr. Alfred Emson, the Surgeon of the Dorchester Tradesmen's Benefit Society, has been presented with a piece of plate, bearing the following inscription:—"Presented to A Emson, Esq., by the members of the Dorchester Tradesmen's Benefit Society, as a mark of respect for his attention as their Surgeon. June 29, 1857."

The Lord Lieutenant has conferred on Eugene le Clerc, Esq., for many years Medical attendant of the Blackrock and Booterstown Dispensary, the office of Surgeon to the Constabulary Force in Ireland, vacant by the promotion of Dr. Hatchell to the Inspectorship of Lunatic Asylums. Mr. Le Clerc is a native of France, who studied in Ireland, and became a member of the College of Surgeons of England in 1844. He is son-in-law of Sir Philip Crampton, Bart.

Ladies' Testimonial to Professor Sands Cox.—We have much pleasure in publishing a notice of a testimonial presented to Mr. Sands Cox, by a body of Birmingham ladies. Among the many appreciators of the services which Mr. Cox has rendered to the town the ladies claim to be included, and they have adopted a most graceful way of evincing their regard. Some time ago a numerous meeting of ladies was held in the committee-room of the Queen's Hospital, for the purpose of expressing their sense of Mr. Sands Cox's worth and services. Mrs. T. B. Upfill was called to the chair. It was proposed by Mrs. Colonel Edwards, and seconded by Mrs. W. Norton, "That a subscription be opened, to present Mr. Sands Cox with a token of their personal regard, their sense of his private worth, and their estimation of his public services." Mrs. Morris Banks kindly undertook the office of honorary secretary, and the list was headed by the Lady Charlotte Law, the Lady Mayoress, and other influential ladies. A handsome sum has been subscribed, and the committee of management have purchased an elegant escritoire of beautiful walnut wood, with chaste silver fittings, and a valuable achromatic microscope. A plate at the foot of the instrument bears the following inscription:—"Ladies' testimonial. Presented to William Sands Cox, Esq., F.R.S., the founder of the Queen's College and the Queen's Hospital, in token of their regard for his private worth and public services. July 1, 1857." This truly graceful tribute of respect is accompanied with an address written on vellum, and inscribed with the names of the subscribers. The subscription to the general testimonial now exceeds £1200 in amount.

Death of M. Sestier.—Another of the rising celebrities of the Paris Medical community has been cut off, like his friend Valleix, in the prime of life. He had conquered an important position through the concours, and had produced an excellent monograph upon Œdema of the Glottis. He has left a valuable work upon the effects of lightning unfinished.

Société de Chirurgie de Paris.—The following are the officers for the ensuing year:—President, M. Bouvier; Vice-President, M. Deguise; Secretary, M. Richard; Vice-Secretary, M. Broca; Committee of Publication, MM. Broca, Morel-Lavallé and Laborie.

Death of M. Alcide d'Orbigny.—This eminent naturalist, the celebrated Professor of Palæontology at the Muséum d'Histoire Naturelle of Paris, and so well known by his scientific travels in South America, died on the 30th ult., after a long and painful illness.

Caution to Professional Men.—At the Bow-street Police-court, a man named David Chalmers was charged with stealing a valuable book from the library of Mr. J. Hullett Broome, Surgeon, of 37, Euston-square. From the evidence of the prosecutor, it appeared that the prisoner called at the house in Euston-square about six o'clock last evening, and said he had been sent by Mr. Knox, a gentleman residing in Bloomsbury-square, to ascertain when it would suit Mr. Broome's convenience to receive a visit from him. The servant of Mr. Broome asked the prisoner to wait in the study while he took the message, and it was during the temporary absence of the servant that the robbery was committed. When the prisoner was leaving the house, the book was seen under his coat. He was consequently detained, and, of course, the alleged message from Mr. Knox proved to be an invention. It having been intimated by the inspector that these robberies had been very frequent of late, the prisoner was remanded.

British Medical Association.—The third annual meeting of the Birmingham and Midland Counties Branch of the British Medical Association was held at the Hen and Chickens hotel, Birmingham, on Thursday, July 2. Dr. Jeaffreson, on retiring from the Presidency, thanked the members for the kindness received from them during the past year, and introduced his friend, Mr. Bartleet, as one in whose hands the office would lose nothing of its importance and usefulness. Mr. Bartleet then delivered an address, chiefly devoted to an able review of the progress made in Medical Science during the year. The Council's report stated, that "since the last annual meeting, when the numbers of the Branch were 149, thirteen new members have been elected. The losses by death during the year have been five; by resignation, four; by change of residence, two. This day the names of eleven gentlemen will be submitted for election; making the total number of the Branch 162." Mr. Coleman of Wolverhampton, Senior Surgeon to the South Staffordshire Hospital, was elected President-elect, and the following members of Council: Mr. Davies, Dudley Port; Dr. Duke, Rugby; Mr. Houghton, Dudley; Dr. Jeaffreson, Leamington; Mr. Moore, Hales Owen; Mr. Niven, Pershore; Mr. Rye, Banbury. For Birmingham: Messrs. A. Baker, J. Hadley, Dr. Johnson, G. Jones, Dr. Marshall, Dr. Melson, Mr. Wickenden, Mr. Yates. The Secretaries, Messrs. Solomon and Pemberton, were re-elected; also the Treasurer, Mr. W. Williams. The proceedings were brought to a close by Dr. Jeaffreson reading an address, in which he embodied a sketch of the history of the British Medical Association, a forcible statement of its object and advantages, and some suggestions for making it and the Branches more useful than they had hitherto been. Votes of thanks were given by acclamation to the readers of the addresses, and a request made that they might be published. At six o'clock a numerous party sat down to a sumptuous dinner, and spent a most convivial evening.

Smoke *v.* Vegetation.—The Smoke Prevention Act has done good already. The gardener of the Temple Gardens states that this year he has 2,000 roses in place of 200.

Association of Medical Officers of Asylums and Hospitals for the Insane.—The annual meeting of this Association was held at the Great Western Hotel, London, on the 2nd inst., when the following office-bearers were elected for the year 1857-8:—*President*, Dr. Forbes Winslow, D.C.L.; *President Elect*, Dr. Conolly, D.C.L.; *Treasurer*, William Ley, Esq.; *Editor of Journal*, Dr. Brockwell; *Honorary Annual Secretary*, Dr. Lockhart Robertson. Dr. Forbes Winslow presided at the dinner in the evening. The arrangements at the Great Western Hotel gave every satisfaction to the large company present. On the evening of the 1st, Dr. Forbes Winslow received the members of the Association at a brilliant conversazione at his house in Cavendish-square, which was numerously attended by its members, and also by the leading members of the Profession in London, to the number of 400. It is the intention of the Association, in the event of Edinburgh being fixed upon by the British Medical Association as the seat of their annual meeting in 1858, also to visit at that date the Scottish metropolis. The proposed legislative enactments, if passed, will doubtless remove the stain that the late report on the condition of the insane in Scotland has left on the character of the country, and will add additional interest and object to the visit of the Association of Medical officers of asylums for the insane in that part of the empire.

Fever in London.—It appears from the Report of the London Fever Hospital for 1856, that the daily average of patients in the Hospital throughout the year was about 110, by far the largest number admitted into the Hospital in any year since its establishment, 55 years ago, exceeding by 300 the admissions in any former year. In regard to the types or forms of the fevers last year, there was nothing remarkable except the extraordinary proportion of typhus to typhoid, as compared with the three preceding years. The experience of the Hospital shows that typhus, strictly so called, is the most prevalent form, but this comparative prevalence varies in different years, as well as at different periods of the same year. Thus, in 1856 there were 1061 cases of typhus against 149 of typhoid (that form characterised by disease of Peyer's glands), being in the ratio of 7·11 to 1, while in the two preceding years (1854 and 1855) the proportion was only about 3 to 2, and in 1853 it was in the ratio of 2 to 1. The greatest disproportion was observed in March and April, in which two months there were 275 cases of typhus and only 16 of typhoid admitted—being in the ratio of 17 of the former to 1 of the latter. Again, it was observed that the months in which the two forms were most nearly equal were from August to November, the proportion in August being 1·4 of typhus to 1 of typhoid. Of that form of fever to which the term febricula has been given, characterised by the mildness of the symptoms, the absence of peculiar rash, and of any organic complication, there were 89 examples, all of whom recovered. The numbers admitted with scarlet fever were 183, being a slight increase as compared with the cases received in 1855. It was most prevalent in April and October, the admissions being 31 and 26 respectively. In regard to the acute diseases *not* fevers, they were, as usual, acute affections of the various internal organs, with accompanying or symptomatic fever. They consisted of diseases of the brain, inflammation of the lungs, tubercular affections in various parts, erysipelas, and acute and chronic diseases of the kidneys. Of this class there was a large proportion—217. The mortality last year was 289, being out of the total numbers admitted and under treatment on the 31st of December, 1855 (1882), in the ratio of 15·3 per cent., including, of course, the deaths from fevers as well as from other diseases. Of the cases of typhus under treatment (1117), the mortality was 204, or about 18 per cent.; of typhoid, it was 24 out of 180, or about 13 per cent. Of the 189 cases of scarlet fever, the deaths were 14, or 7 per cent. Of the other acute diseases *not* fevers (291), there were 47 deaths, or about 16 per cent. To show the severity of the cases, and, in too many instances, the hopeless condition of the patients when admitted into the Hospital, it may be stated that 152 patients died within a week after admission, and of those 27 did not survive 24 hours. Comparing the mortality of 1856 with that in the preceding year, the proportion of deaths was much smaller. In 1855 the gross mortality was nearly 17 per cent. (last year it was 15); that from typhus 25 per cent. (last year it was 18); from typhoid, 13 per cent. (last year it was nearly the same); scarlet fever was also less fatal last year than in 1855, being about 7·4 against 12·7 per cent.; while of the acute diseases not fever, the mortality was about 1 per cent. higher than in 1855. Notwithstanding the large number of patients in the Hospital last year, imposing necessarily increased labour on those in attendance on the sick, the nurses and inmates of the establishment have, with a few exceptions, escaped. One of the housemaids was seized with typhus, but she recovered. Three of the nurses were also the subjects of typhus, and they also recovered, as well as another nurse who passed through a mild form of scarlet fever.

Expulsion of a Spiritual Medium from Harvard University.—It appears that a student of divinity at Harvard University, professing to be a spiritual medium, ventured to invite several members of the faculty to witness his surprising feats, which are said to have surpassed any similar performance of this nature. At this "sitting," however, the discovery was made by a professor of the Scientific School, that the tables were moved and the music of the spirits produced by a trick of his feet. A meeting of the faculty was convened, and the matter thoroughly investigated, which, resulted in the expulsion of the delinquent, who has hitherto sustained an unblemished reputation among his fellow-students, who mainly believed him self-deceived.—*Boston Post.*

Income of Hospitals and Dispensaries.—In a report of the Statistical Society of London it is stated that 14 general hospitals in London possess an income from realized property to the amount of £109,687; annual subscriptions, £17,091; donations, £16,636; legacies, £10,206; and their miscellaneous sources of income to £1,996. The total income of all these hospitals from every source is £155,616, and the annual contributions of the public amount to £45,929. In addition to the above hospitals there are in this metropolis 36 special hospitals, possessing an aggregate income of £117,218; making the income of the general and special hospitals taken together amount to £272,834. There are also returns from 42 general dispensaries, possessing incomes from all sources of £21,000; and 18 special dispensaries, with annual incomes of £8,064. If these two sums, making £29,064, be added to the former, it gives the enormous amount of £301,898 annually expended in medical charities in this metropolis; and this sum, large as it is, excludes Samaritan and other funds connected with hos-

pitals and dispensaries, Poor Law medical relief (£28,776), cost of maintenance of pauper lunaties (£79,988), vaccination (£4,292), and nurses' training institutions. All these sums would make a grand total of nearly half a million expended on our sick poor.

FOUR HUNDRED MILLIONS OF CHINESE.—The *Moniteur de la Flotte* contains the following remarks on the subject of the population of China :—"A recent document, the source of which is authentic, allows a great blank to be filled up, as the last official census dates as far back as the reign of Kia King in 1814. At the period of the attack on Canton by the squadron of Admiral Seymour, the English took possession of the palace of the viceroy, where they found a book in the Chinese language, produced at the imperial printing-office of Pekin, and entitled 'List of the Population of China and of her Colonies according to the Census made by order of the Sublime Emperor, Hien Fung, and in the fourth year of his reign (1852).' The Emperor Hien Fung is now on the throne, and the census which he has had made is thirty-seven years more recent than that executed in the reign of Kia King. During that period of time, the population of China has increased in a considerable proportion. In 1815 it was 371 millions, and in 1852 it had reached 396 millions. It may now be calculated without exaggeration at 400 millions. Such a number is extraordinary, particularly when compared with the population of the largest states of Europe. There is in that immense empire an agglomeration of people, of which no words can give an idea. The province of Kiang Sou alone has 37,900,000 inhabitants ; that of Gan Hyvuy, 34 millions ; Kiang Si, 20 millions ; Chang Toung, 29 millions ; Tchy Li, 28 millions ; Houpe, 27 millions ; Ho Nan, 25½ millions ; in these different provinces there are a number of cities, the population of which varies from between 500,000 and a million ; many towns contain as many as 25,000 souls. This excess of population engenders devastating bands, who continually ravage the country, and it creates an enormous mass of individuals without house or home, who are ready for any outrage. It also produces the inexhaustible number of emigrants who now begin to replace negroes in South America. A few years since the governors of the provinces of Tchy Li, Liang Sou, Chang Tung, and the Kiang, could devise no other means of checking the increase of the population than by authorizing the poor inhabitants to throw their children into the rivers within twenty-four hours after their birth, and that monstrous plan was actually carried into practice."

THE CHOLERA.—Letters from St. Petersburg state that the cholera is gaining ground as the weather becomes warmer. The average number of deaths there at present is seventy per day.

INSPECTION OF APOTHECARIES' SHOPS.—The following Report from the Censors of the College of Physicians was presented to the college at the Comitia Majora, on June 25 :—

"At the end of a year of visitation, the Censors having inspected, as they believe, every shop in the City, have the satisfaction of reporting that improvement is gradually taking place in all the apothecaries' shops within their appointed district. In many instances they have had occasion to express their marked approbation, and have found much to commend in nearly all. The Censors have especially directed their attention to the care taken of poisonous drugs, and the method of their sale. They again found occasion to commend many methodical attempts to indicate poisonous drugs, so as to avoid accidents in dispensing them. They consider, however, that the extension of sound chemical knowledge among the druggists and dispensers of medicines would be the most effective safeguard against accidents ; and, as regards the public, they consider that a wider knowledge of the nature of poisons and their effects, and the certainty of their detection when administered, would tend most effectually to restrain both the criminal and the careless use of them.

(Signed) "JAMES ALDERSON,
WILLIAM A. GUY,
PATRICK BLACK,
HENRY PITMAN, } Censors.

"Royal College of Physicians, June 25. 1857."

THE DUVAL PRIZE IN SURGERY.—This prize, annually adjudged by the Société de Chirurgie, of Paris, to the author of the best thesis published in France during the last year, has been this year conferred upon M. Caron, for his thesis on the "Treatment of Varix by the Injection of Perchloride of Iron into the Veins."

VITAL STATISTICS OF LONDON.

Week ending Saturday, July 4, 1857.

BIRTHS.

Births of Boys, 826 ; Girls, 778 ; Total, 1604.
Average of 10 corresponding weeks, 1847-56, 1422.

DEATHS.

	Males.	Females.	Total.
Deaths during the week	541	488	1029
Average of the ten years 1847-56	...	...	980
Average corrected to increased population	...	...	1078
Corrected average for corresponding week in ten years 1847-56	517·4	462·3	979·7
Deaths of people above 90	...	...	..
Deaths in 13 General Hospitals	48	23	71

METEOROLOGY.

From Observations at the Greenwich Observatory.

Mean height of barometer	29·678 in.
Mean temperature	62·4
Highest point of thermometer	92·7
Lowest point of thermometer	52
Mean dew-point temperature	55·8
General direction of wind	S.W.
Whole amount of rain in the week	0·28
Amount of horizontal movement of air in the week ...	645 miles.

DEATHS REGISTERED DURING THE WEEK.

Causes of Death.	In the Week ending Saturday, July 4, 1857. Deaths of Persons. AT ALL AGES.	Under 20 Years of Age.	At 20 and under 40 Years of Age.	At 40 and under 60 Years of Age.	At 60 and under 80 Years of Age.	At 80 Years of Age and Upwards.	Averages of Temperature and Deaths in 10 Weeks.
Mean Temperature	Mean temp. 62°4						60°7
ALL CAUSES	1029	532	155	164	148	30	979·7
SPECIFIED CAUSES	1028	531	155	164	148	30	974·9
DISEASES:—							
1. Zymotic Class	233	199	9	10	14	1	240·9
2. Dropsy, Cancer, and others of uncertain seat	36	2	3	12	16	3	45·3
3. Tubercular Class	179	69	71	33	6	..	190·2
4 Of Brain, Nerves, etc. ..	121	57	15	24	22	3	114·0
5. Of Heart, etc.	23	2	4	9	8	..	38·0
6. Of Respiratory Organs ..	101	45	11	19	24	2	98·7
7. Of Digestive Organs ..	64	32	9	15	7	1	61·1
8. Of Kidneys, etc.	12	1	2	3	5	1	11·8
9. Of Uterus ; viz. — Puerperal Disease, etc. ..	7	..	5	2	..	..	7·8
10. Of Joints, Bones ; viz.— Rheumatism, etc. ..	4	2	..	1	1	..	8·0
11. Of Skin, etc.	3	2	..	..	1	..	2·7
12. Malformations	7	7	..	..	..	..	3·2
13. Debility from Premature Birth, etc.	24	24	..	..	..	..	24·5
14. Atrophy	34	27	..	..	7	..	27·4
15. Age	35	..	..	..	16	19	32·9
16 Sudden	17	8	..	3	6	..	14·5
17. Violence, Privation, etc. ..	128	54	26	33	15	..	53·9
CAUSES NOT SPECIFIED.. ..	1	1	..	..	..	..	4·8

DEATHS IN SUB-DISTRICTS FROM EPIDEMICS

	Population. 1851.	Small-pox.	Measles.	Scarlatina	Hooping-Cough.	Diarrhœa.	Typhus.
West	376,427	..	2	1	9	8	5
North....	490,396	3	2	6	8	9	3
Central ..	393,256	..	6	2	15	12	5
East	485,522	1	14	9	18	21	12
South	615,635	1	1	1	8	15	9
Total..	2,362,236	5	25	19	58	33	34

TO CORRESPONDENTS.

A Neighbour.—The form of proceeding under the Common Lodging-House Act is, that an inspecting officer, on learning that a house is used as a common lodging-house, serves a notice on the keeper, warning him to register his house, leaving with the notice a copy of the regulations. On the certificate of the inspecting officer that the requisite conditions are fulfilled, the house is placed on the register. But if at the expiration of the time allowed the house is not put in a proper state, a refusal to register the house follows. A night visit is then ordered, and evidence obtained on which to base proceedings before a magistrate.

Mr. Price's paper on Resection of the Knee-Joint will appear in an early number.

Toxicologist.—In a recent case of poisoning by oxalic acid at Bolton, Mr. Watson deposed that the stomach itself was of a very dark colour generally; in some parts it was nearly black, and the blood-vessels in it were injected with very dark-coloured blood, owing to which they had much the appearance of ink-marks as made by a pen. From about one-half of the mucous fluid he had separated a little more than twenty grains of crystals (oxalic acid). He showed in a glass cup the crystals he had reproduced.

DR. BOREL.

TO THE EDITOR OF THE MEDICAL TIMES AND GAZETTE.

SIR,—Respecting a review published in your Journal of the 27th ult., page 650, the review of a pamphlet upon the "Radical Cure of Gout," published by Docteur G. Borel de Mens, styling himself "Médecin-adjoint de l'Hotel Dieu," etc. I am requested by M. le Professeur Trousseau and his colleague, to inform you and the public that there is no such person as M. G. Borel de Mens attached to their staff, and that the author of the "Guérison Radicale de la Goutte" is not known to them even by name. I am, &c. E. OLDFIELD.

81, Boulevard Mt. Parnasse, 8 July, 1857.

Dr. B.—Lord Justice Turner said, "The principles guiding the Court in directing the powers of those who have the authority over and custody of lunatics were first to see whether it were for the benefit of the lunatic to allow a commission to issue. The Court was inclined to look solely to the benefit of the lunatic. Those who are called upon to act are to consider the expectation of the recovery of the lunatic, and to take care that if he be a man of large property the excess of income should come safe to his hands when the cause for the issue of the commission should have ceased."

Dr. Johnson.—Since 1851 no less than 4,614 summonses have been taken out against the keepers of common lodging-houses for various offences against the provisions of the Acts—a large proportion of them being against the keepers of rooms for the indiscriminate admission of lodgers of different sexes without regard to decency and cleanliness.

EXCELSIOR. A NEW VERSION.

This poem represents the continued exertions of Griffin. Disregarding the every-day comforts of life, the malignity of mean minds, the wearisomness and unprofitable character of Poor-law Board correspondence, and the warnings of experience, he presses onward along his ofttime solitary path:—till eventually, having a good cause, a determined spirit, and the support of his brotherhood and the State, weary of a long injustice, a voice in the air proclaims his complete triumph and the rejoicings of a scientific multitude.

Cimmerian darkness cast its gloom
Within the Guardians' meeting room;
When suddenly, yes, in a trice,
Bold Griffin lit the strange device—
Excelsior!

His brow was firm, his eyes so gleam'd,
The timid worthies well nigh scream'd,
The chairman's nerves were quite unstrung,
When e'en the very rafters rung,
Excelsior!

In wretched homes he saw no light,
No fire. Where he must spend the night
He 'd little comfort and less ease,
His cold would hardly let him weaze —
Excelsior!

"Mind not the pay," the parson said;
"Your half loaf's better than no bread;"
Contempt was lurking in his eye.
But still he deign'd the mild reply,
Excelsior!

We have given a specimen of our Correspondent's parody. The tone of the concluding portion may be inferred from the preface.

A CAUTION.

An honorary local secretary of the Medical Benevolent College wishes us to advise any members of the Profession who may be applied to for assistance by a Mrs. Spong, to refer her to the steward of the College at Epsom.

Gulielmus.—1. Not legally. 2. Certainly not.

M. A. B.—The belt sent is certainly far better than any roller or stays for an infant; but it remains to be proved that any artificial bandage is necessary for a healthy child.

"FAMILY DOCTORS."

TO THE EDITOR OF THE MEDICAL TIMES AND GAZETTE.

SIR,—Possibly ere this some one else has replied to "A Physician," and told him that Clause XXX. in Mr. Headlam's Bill is not a vital error, but a *sine qua non*, by special decision of the College—of which, perhaps, he is not a member; and if so, the question is more called for, that we may know who are these "Family Doctors."

As far as I know, a Physician is a person whose fee is a guinea; and if he takes less, under the title of "Family Doctor,"—unless he openly professes, and not tacitly leaves people to discover, that his "M.D." means something different—he is a General Practitioner in disguise.

I am, &c.

London, July 4, 1857. O. O.

The papers of Dr. Goodwin and Dr. Burton shall be inserted.

D. S.—Even in matters of opinion we always require the real signature o the writer, in confidence, before publishing a letter.

An Old Subscriber.—Certainly. His qualifications are M.D. Aberdeen, and M.R.C.S. Eng., according to the Directory.

WONDERS WILL NEVER CEASE.

TO THE EDITOR OF THE MEDICAL TIMES AND GAZETTE.

SIR.—In your Magazine for Saturday week was a communication from Mr. W. W. Evans, setting forth the marvellous effects of Acacia charcoal made by means of electricity, and expressing his readiness to allow any competent persons to see the effects of his treatment. I think his puff was headed "Wonders will never cease," or something to that effect. I quite agree with him. Certainly a great wonder it was to see such a paragraph in your Journal, and perhaps it was a wonder I could be taken in by it. However, I requested immediately Mr. Collier, a chemist in York, to write to him, and say I had exactly such a case as he describes under treatment at this time, and if he would inform Mr. Collier where the specific could be obtained I would give it a fair trial, and let him know the result. By return of post Mr. Collier received the following laconic answer:—

"DEAR SIR,—If Mr. Hey, the Surgeon, will send me the symptoms of the case, I shall be happy to treat it. I am, &c. W. W. EVANS."

"12, Bernard-street, Primrose-hill, London."

I shall make no comment upon this further than to say that it might be interesting to your subscribers, myself amongst the rest, to know how such a paragraph could find its way into the *Medical Times and Gazette.*

York, July 7, 1857. I am, &c. RICHARD HEY.

[We trust it is hardly necessary to say to other of our constant readers than our esteemed correspondent Mr. Hey, that the heading "WONDERS WILL NEVER CEASE" was appended to Mr. Evans's letter by ourselves, in order to show that we only regarded his communication ironically.—ED.

COMMUNICATIONS have been received from—

Dr. KIRKES; Mr. PRICE; Mr. KESTEVEN; Dr. GOODWIN, Norwich; Mr. DIX; Dr. MORIARTY, Dieppe; Dr. BURTON; Dr. NOBLE, Manchester; Mr. PROPERT; Dr. MACLEOD, Glasgow; Dr. GIBSON; Dr. ROBERTSON; Dr. W. OGLE; Dr. SCOTT; Mr. NAYLER; Mr. HEATH; Mr. R. TURNER; Mr. SIMPSON; Mr. ADAMS; Mr. DUNCAN; Mr. BRERETON; Dr. BRIER; Mr. GRAMSHAW; Mr. LOCKING; A PHARMACEUTIST; Mr. W. WILLMOTT; Mr. WATSON; Mr. T. TARZEWELL; Mr. ROBINSON; Dr. WHITE; Dr. SIMPSON; Mr. W. HULKE; Mr. WARD; Dr. W. JONES; Dr. BREMNER; Mr. J. GARFORTH; Dr. C. FORD; Dr. W. TAYLOR; Mr. J. BROADBENT; Mr. CLIFTON; Mr. TUCKER.

APPOINTMENTS FOR THE WEEK.

11. *Saturday (this day).*

Operations at St. Bartholomew's, 1½ p.m.; St. Thomas's, 1 p.m.; King's, 2 p.m.; Charing Cross, 1 p.m.

ROYAL COLLEGE OF PHYSICIANS—*Soiree*, 9 p.m.

ROYAL BOTANIC SOCIETY, 3½ p.m.

13. *Monday.*

Operations at the Royal Free Hospital, 1 p.m.; Metropolitan Free Hospital, 2 p.m.; Orthopædic Hospital, 3 p.m.

14. *Tuesday.*

Operations at Guy's, 1 p.m.; Westminster, 2 p.m.

ZOOLOGICAL SOCIETY, 9 p.m.

15. *Wednesday.*

Operations at University College Hospital, 2 p.m.; St. Mary's, 1 p.m.; Orthopædic Hospital, 3 p.m.

16. *Thursday.*

Operations at St. George's, 1 p.m.; Middlesex, 12½ p.m.; Central London Ophthalmic, 1 p.m.; London, 1½ p.m.

17. *Friday.*

Operations at the Moorfields Ophthalmic, 10 a.m.; Westminster Ophthalmic, 1½ p.m.

EXPECTED OPERATIONS.

On Saturday (this day), at King's College Hospital, two cases of hare-lip, by Mr. Fergusson; amputation of arm, and removal of necrosed bone, by Mr. Partridge. Next Wednesday, at St. Mary's, excision of the knee-joint, by Mr. Haynes Walton.

ORIGINAL LECTURES.

A COURSE OF LECTURES ON ORTHOPÆDIC SURGERY,

DELIVERED AT THE

Grosvenor-Place School of Anatomy and Medicine.

(ADJOINING ST. GEORGE'S HOSPITAL,)

IN THE

SESSION OF 1854-55.

By WILLIAM ADAMS, F.R.C.S.

Assistant-Surgeon to the Royal Orthopædic Hospital; Lecturer on Surgery at the Grosvenor-Place School; late Demonstrator of Morbid Anatomy, etc., at St. Thomas's Hospital, etc.

LECTURE XI.

MECHANICAL TREATMENT OF TALIPES VARUS.

Objects of mechanical treatment—Mechanical conditions of the foot, and movements which concur in the production of varus—Simplicity of mechanical treatment in infantile varus—Division into two stages—Apparatus employed—Mechanical treatment after the period of walking and in the adult—My objections to the Scarpa's shoe as an instrument for varus—Apparatus used by Scarpa for varus.

GENTLEMEN,—Having described to you the general principles of the treatment of talipes varus, and the details of the operative treatment, we now approach the concluding part of our subject, viz.: the mechanical and physiological treatment, the necessity of which, in conjunction with the operations described, I have already insisted upon.

Congenital talipes varus having been shown to depend upon—1. The contraction and structural shortening of certain muscles. 2. Upon the displacement of certain bones. 3. As a result of these two conditions, upon the adapted growth of some of the tarsal bones, which therefore present variable degrees of malformation, even at the period of birth. 4. In severe cases, upon the adapted shortening of certain ligaments. It follows that the objects of mechanical treatment, after the division of the tendons, are—1. To insure the requisite elongation of the contracted and shortened muscles, by regulating the length of the new tendon formed during the reparative process after division. 2. To replace, or re-conduct to their normal positions, the displaced bones. 3. In accomplishing the second object, to elongate the contracted and shortened ligaments. 4. To retain the bones in their normal relations, and to encourage the use of the joints in their normal directions, so that, as growth proceeds (assuming the treatment to be undertaken at an early period, as recommended), the bones may assume their normal typical form; and the muscles may be brought into exercise, with the view of promoting their structural development and physiological perfection.

Thus you perceive that the mechanical treatment has reference—1. To the reparative process in the divided tendons; and 2. To the restoration of the form of the foot. With respect to the first point, I would only observe that very erroneous ideas appear to exist. It is generally said that the divided tendons must be allowed to reunite, and then the new connecting material gradually stretched by mechanical means to the requisite length. I believe the theory of stretching the new material formed in the reparation of tendon to be altogether erroneous. The new material does not admit of being stretched like india-rubber, and then, unlike this material, of being retained at any required length. The object is not to stretch tissue already formed, but to regulate the length of new material during its formation. This can be accomplished with ease and certainty where no ligamentous resistance exists, as in most of the non-congenital deformities; but where much ligamentous rigidity exists, as in severe cases of congenital varus, it is sometimes impossible to gain the required length before complete reunion of the divided tendon has taken place, and then the acquirement of any additional elongation is so tedious and uncertain, that a re-division of the tendon may be advisable. I have already alluded to this subject in speaking of the mechanical treatment of talipes equinus, and stated that the rate of extension must be regulated by the activity of the reparative process in the divided tendons. In well-nourished infants the required length should be obtained in a fortnight, while in paralytic limbs it should not be obtained in less than from six to eight weeks.

With regard to the second point, viz., the restoration of form by elongation of the contracted ligaments, it is scarcely necessary to observe that the rate of extension may proceed as fast as the circumstances of the case permit, having regard to the condition of the tendon, the avoidance of pain, and the prevention of abrasion or slough from local pressure.

MECHANICAL CONDITIONS OF THE FOOT.

Now, let us consider the mechanical conditions of the foot in talipes varus, which it is the object of mechanical treatment to overcome. I have already described to you the precise deviations in position of the different bones, and by reference to figs. 36, 37, and 38 (*Medical Times and Gazette*, Sept. 6, 1856) it will be seen that the foot, if mechanically considered, may be regarded as divided into two portions, which move in different directions from two distinct centres of motion. The division between the two portions alluded to corresponds to the articulations between the first and second rows of the tarsal bones, viz., the astragalo-scaphoid and the calcaneo-cuboid articulations—indicated by the oblique dotted line, *a a*, in fig. 37 and 38. At this great transverse tarsal joint a considerable amount of motion exists in the healthy condition of the foot; and in talipes varus the inversion of the foot takes place essentially from this centre of motion, and therefore involves only the anterior two-thirds of the foot. The posterior third of the foot, consisting of the os calcis and astragalus, has its centre of motion in the ankle-joint, from the construction of which it can only move in the direction of flexion and extension; at least, this is essentially the direction of its motion, although we know that when the foot is in an extended position slight lateral movement is allowed, in consequence of the posterior part of the astragalus being narrower than the anterior and central portions.

As a starting-point, I am particularly anxious to impress upon you this twofold division of the foot; the position of the mechanical centres of motion from which these portions move; and the different directions in which they move; because it appears to me, (looking at the different instruments employed for the cure of varus, and more particularly the Scarpa's shoe, which is the instrument generally used at the Orthopædic Hospital and elsewhere,) that the mechanical treatment has been conducted as if upon the idea of the entire foot being turned inwards by some movement of rotation from a common centre corresponding to the ankle-joint; but to this I shall again allude.

MOVEMENTS PRODUCING TALIPES VARUS.

The four following movements may be described as concurring in the production of severe talipes varus, and may be readily understood by reference to figs. 36, 37, and 38.

1. *Extreme extension of the whole foot*, taking place from the ankle-joint, as the centre of motion, and produced by contraction of the gastrocnemius and soleus muscles acting through the tendo-Achillis (see fig. 36). In this movement the os calcis is drawn into a very oblique, and the astragalus into a vertical position.

2. *Inversion of the anterior two-thirds of the foot*, taking place from the transverse tarsal joint (see figs. 37 and 38). Supposing this movement not to take place till after the completion of the first—a supposition adopted for convenience of description and in reference to treatment, rather than from any certainty that it does do so—the inversion would be produced by the anterior two-thirds of the foot being drawn directly inwards and upwards, moving in a transverse plane, and describing a quarter of a circle in a right-angled varus. The centre of motion in this movement corresponds to the transverse tarsal joint, indicated by the oblique dotted line, *a a*, in figs. 37 and 38. The navicular bone is drawn directly under the inner malleolus, and its long axis occupies a vertical instead of a transverse direction, the bone lying side by side with the neck of the astragalus, in its vertical position. The muscles producing this movement are the tibialis anticus and posticus, the flexor longus digitorum; and in severe cases the extensor and flexor pollicis.

3. *Shortening of the foot.*—This does not depend upon a simple flexion of the foot—a bending of the foot upon itself, and an increase of its longitudinal arch, as generally described, and as seen in talipes calcaneus of long standing. It differs from this condition in the fact that the sole of the foot is in opposite relation to the internal lateral aspect of the os calcis

instead of the inferior surface. Although cases are occasionally met with, especially in infancy, in which shortening of the foot exists independently of the other movements essential to the production of true talipes varus—cases simply of contraction of the plantar fascia; still, when it does exist in varus, it is generally found in the severest grade of that deformity, and depends upon an extreme contraction of the muscles concerned in the production of the second movement, and also upon contraction of the short flexor muscle of the foot, the plantar fascia and the deep tarsal ligaments. In severe adult cases, shortening of the peroneus longus also co-exists with the above conditions, as in the case from which the wood-cuts (figs. 32 and 33, *Medical Times and Gazette*, May 24, 1856,) were taken. The shortening of the foot, therefore, is not essential to the production of varus. It occasionally exists in infantile cases, but is constantly present in adult cases.

4. *Rotation of the anterior part of the foot*, taking place not in the production of inversion, but after the inversion is complete. Scarpa first described the altered relations of the tarsal bones, producing the inversion of the foot, as resulting from a movement of rotation, and especially described the navicular, cuboid, and os calcis as being "twisted round their smaller axes," and the cuneiform and metatarsal bones as necessarily following this rotation. The same idea is repeated by all authorities on club-foot, but it appears to me to be decidedly incorrect, and to lead to errors in the mechanical treatment. It is undoubtedly true that the navicular bone alters its axial relations, so that, instead of the long axis being horizontal, it is vertical; and a movement of rotation might alone be supposed capable of effecting this change, and so it would if the astragalus and the os calcis retained their normal position, viz., horizontal; but both these bones also change their axial relations from the horizontal towards the vertical direction. Now, if these two great bones be supposed to move first, so as to produce the extension of the foot—or even to move simultaneously with the navicular bone—it is obvious that the only movement necessary to produce the altered direction of the navicular bone is one of simple uplifting, so that the inner border, and with it the anterior part of the foot, is drawn inwards and upwards, as described in the second movement. It is therefore evident that the altered position of the navicular bone is not produced by rotation, and that rotation is not necessary to the production of varus. I cannot recognise this movement in any cases of infantile varus, however severe. In adult cases, a certain amount of rotation does exist, and is essentially the result of the superincumbent weight telling upon the foot in the act of progression. As a result of this pressure, it appears to me that the tarsal bones in front of the transverse tarsal joint, indicated by the dotted line in figs. 37 and 38, are rotated from before backwards; the cuboid bone being more changed than any other, so that the aspect of the sole of the foot is made to look upwards and backwards, as shown in fig. 37, instead of directly backwards. The movement of rotation, then, which I describe, affects the inverted anterior portion of the foot after the period of walking, and carries the outer—or in the club-foot the inferior—border of the foot further backwards than it is ever met with before this period. It is an acquired, not an essential movement.

Thus, it appears that the first two movements, viz., extension of the whole foot, and inversion of the anterior two-thirds of the foot, are essential to the production of varus, and therefore constantly exist in infantile cases. The third movement, viz., shortening of the foot, though not essential to the production of the deformity, not unfrequently co-exists with the first and second movements in severe infantile cases, and is constantly present in adult cases. The fourth movement—viz., rotation of the anterior portion of the foot—is not essential to the production of varus, and never exists in infantile cases; or perhaps it may be more correct to say that it only exists in a slight degree in the severest forms of infantile cases occasionally met with, but it constantly exists in adult cases, in combination with the three other movements; and also frequently exists in youth, depending upon the cuboid bone, and the fourth and fifth metatarsal bones being carried further backwards by the superincumbent weight transmitted to the ground through these bones in the act of progression.

Having now determined the mechanical conditions of congenital talipes varus, as it exists at the different periods of life, and in its different degrees of severity, we may proceed to consider the mechanical means best adapted to the removal of these conditions, and their mode of application. As certain modifications have been shown to exist with respect to the number of the above-described movements usually co-existing in infantile and adult cases, and as these require important modifications in the instruments employed, it will be desirable to describe the mechanical treatment of the infantile and adult cases separately. First, then, with respect to—

THE MECHANICAL TREATMENT OF INFANTILE VARUS.

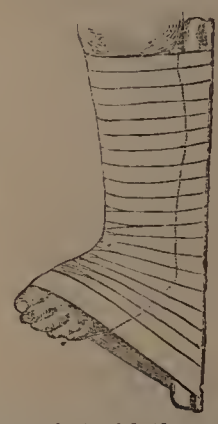
This may be conducted on an extremely simple and efficient plan, if one great practical rule, to which I have previously adverted when speaking of the operative treatment, be strictly adhered to, viz.: *the division of the treatment, both operative and mechanical, into two stages;* the object of the first stage being to overcome the inversion of the anterior portion of the foot, and thus convert a case of talipes varus into one of equinus; and the object of the second stage being simply to cure the equinus. There is no claim to novelty in this twofold division of the treatment. Scarpa, in his mechanical treatment of this deformity, adopted precisely the same plan. He aimed at curing the severest forms of varus, up to the age of 10 or 12 years (a), and from his excellent description we find that he accurately appreciated the mechanical conditions as I have above described them, in reference to the two great centres of motion, viz., the transverse tarsal joint and the ankle-joint; and the different planes in which the anterior and posterior portions of the foot move in the production of this deformity. The treatment of the severe forms of varus has always been conducted upon this principle at the Orthopædic Hospital, but it does not seem to be generally known to the Profession. Surgeons usually divide the tendo-Achillis at the first operation, and this, I need hardly say, is at once fatal to the principle of treatment I am now recommending. It may be thought that tenotomy, by at once overcoming the great obstacles to the restoration of the foot, supersedes the necessity of this twofold division of treatment, but, except in the slighter forms of infantile varus, it does not do so; and the explanation of this fact will be found in the adapted shortening of the ligaments in severe cases, upon which I have already laid so much stress.

In slight infantile cases, then, you may divide all the tendons recommended to be divided, viz., the tibialis anticus, tibialis posticus, flexor longus, and tendo-Achillis, at the first operation; and after the foot has been retained in its deformed

FIG. 43.

Case of Infantile Varus.

FIG. 44.



The same foot with the straight splint and bandage applied.

FIG. 45.

The same foot brought into the position of equinus by the splint and bandage.

FIG. 46.

The same foot cured. The equinus removed by the Scarpa's shoe.

(a) Op. cit. page 41.

position by a bandage and splint for three days, you may apply the Scarpa's shoe, and gradually, in the course of two or three weeks, bring the foot into its natural position. *In all severe infantile cases*, or I would say in all those cases in which any ligamentous rigidity appears to exist, I strongly recommend you to divide the treatment into *the two stages above recommended*. In these cases first divide the tendons of the tibialis anticus and posticus, the flexor longus digitorum, and, if necessary, the extensor pollicis muscles; then bandage the foot in the deformed position to a splint, as recommended, and on the third or fourth day, the cutaneous puncture being healed, commence *the first stage of the mechanical treatment*, the object of which is the complete eversion of the anterior part of the foot. The best and simplest method of accomplishing this is by the application of a straight splint along the outer side of the leg, as represented in fig. 44. The splint should reach above, nearly to the knee, and inferiorly should extend a little below the foot. The splints we use are made of tinned sheet-iron, well padded. The advantage of this material is that it can be bent a little outwards at the lower end, as the foot is becoming fully everted. First bandage the foot and leg, then apply the splint, and begin to bandage from above downwards, so that a firm lever-power may be established; then pass the bandage round the foot, and draw it towards the lower end of the splint, as shown in fig. 44. The eversion of the foot must be done gently and very gradually, the apparatus being removed every other day, that undue pressure may be avoided. By this means you will be enabled to overcome the eversion, and draw the foot into a straight line with the leg, as shown in fig. 45, in about two or three weeks; in very severe cases a little longer time may be required. It is better this stage be delayed too long, than that the second stage be commenced too soon.

When the eversion of the foot is complete, as in fig. 45, and there is no longer any resistance to be overcome in carrying the foot completely into the equinus position, the second stage of treatment may be commenced by dividing the tendo-Achillis. The object of the *second stage of the mechanical treatment* is to flex the foot at the ankle-joint, and in so doing to gain the required amount of elongation of the tendo-Achillis. This object must be accomplished gradually, for the reasons I have already given, and the apparatus best adapted to the purpose is the Scarpa's shoe, or the modification I have suggested and delineated in fig. 26, (see *Medical Times and Gazette*, 20th March, 1856.) This is a most scientific instrument for equinus, but a most unscientific instrument for varus, where any ligamentous rigidity exists, and, as I shall presently show you, was never employed by Scarpa for overcoming the inversion of the foot. The flexion of the foot must be regulated by the cog-wheel placed opposite the ankle-joint; and in about a fortnight the foot may be brought into its natural position, and the required elongation of the tendo-Achillis obtained. At the end of this time, or it may be longer if ligamentous rigidity exists, passive motion may be commenced, and the Scarpa's shoe used simply as a retentive apparatus. I usually direct passive motion—flexion and extension of the ankle-joint—to be continued for a quarter of an hour twice a day. About the end of the fourth or fifth week, if the tendo-Achillis should appear to be strong, the Scarpa's shoe should be worn only at night. In the day time the child may then wear an ordinary cloth boot with a steel spring, or a very light straight bar attached to the outer side, having a free joint corresponding to the ankle-joint, and connected above with a circular strap round the calf of the leg. A stop-joint is generally recommended at the ankle, but I much prefer free motion, because the exercise is thereby facilitated, and where this is neglected I doubt whether the stop-joint will prevent recontraction of the tendo-Achillis. I rely more upon the frequent and regular employment of passive motion than any mechanical aid.

MECHANICAL TREATMENT OF CONGENITAL VARUS AFTER THE PERIOD OF WALKING, AND IN THE ADULT.

I have already explained to you that the severity of talipes varus becomes much increased after the period of walking, not only in consequence of the adapted growth of the ligaments, and the persistence of the deviations in the bones, but by the influence of the superincumbent weight in the act of progression, which is transmitted to the ground at first through the outer border of the foot, and subsequently through the exposed anterior articular surface of the os calcis; the exposed portion of the head of the astragalus; the cuboid bone, which is gradually changed in its position, so that its superior surface looks directly downwards; and through the fourth and fifth metatarsal bones. Thus we find, with respect to the four movements described as concurring in the production of varus, that only the first two—viz. extension of the foot, and inversion of the anterior portion—constantly exist in infantile cases; whilst, after the period of walking, the third and fourth movements—viz. shortening of the foot, and rotation of the anterior portion—are found to exist in an increasing degree, and are constantly present, as well-marked characters of the adult deformity.

In children from five to ten years of age, a period within which they frequently come under treatment at the Orthopædic Hospital, the same mechanical means may be employed as in the infant—viz. a straight splint for the first stage, and Scarpa's shoe for the second; and when the ligamentous rigidity is not considerable, the same method may be adopted at a much later period, especially in females; but severe and rigid cases, even in children, are better treated by the apparatus which I shall presently describe as especially adapted for adult cases.

In adult cases, the Scarpa's shoe, as represented in fig. 25, *Medical Times and Gazette*, 20th March, 1856, is the apparatus generally employed at the Orthopædic Hospital; and it must be admitted that the most successful results have been attained by the use of this instrument, even in the most severe cases, up to the age of thirty years, or beyond, in some few instances; but in discussing the merits of the apparatus, as judged by its results, the extraordinary amount of attention which these cases receive at the Hospital must be borne in mind. The Surgeon conducts the whole of the treatment himself, and a very competent "sister" is always at hand to check any indications of undue pressure. Under such circumstances, therefore, it cannot be matter of surprise that good results should follow the application of an ill-adapted instrument. For the very severe cases, a modification of the Scarpa's shoe has been employed by Mr. Tamplin, which consists in the addition of one or two cog-wheels placed above those marked *k* and *l*, fig. 25, corresponding to the ankle-joint; and also in carrying the apparatus up to the thigh by means of a straight trough, without any motion at the knee-joint. By these means the power of adaptation and the range of motion in the Scarpa's shoe part of the instrument are increased, and the apparatus is rendered more fixed by the trough, but all the essential errors of the Scarpa's shoe, which I shall presently describe, are retained; and in consequence of the length of time the apparatus has to be constantly worn, —from a year to a year and a half, or perhaps longer,—a state of rigidity of the knee-joint is apt to be induced, which I have known it take three months to overcome, the gradual flexion of the knee being very painful to the patient.

A very difficult part of the treatment of talipes varus in the adult, and one for which no provision whatever exists in the construction of the Scarpa's shoe, is what is called "unfolding the transverse arch of the foot." According to the anatomical description I have given you of this deformity, this would be more correctly described as "overcoming the rotation of the anterior portion of the foot," by restoring the cuboid bone to its normal relations. I have shown you that in the severe adult specimen, figs. 36, 37, and 38, the transverse arch of the foot is not really contracted,—that the fifth metatarsal bone is not abnormally approximated to the metatarsal bone of the great toe,—but that the aspect of the sole of the foot is so far changed, that it looks directly upwards and backwards, in consequence of the cuboid bone, and with it the fourth and fifth metatarsal bones, being carried backwards by the influence of the superincumbent weight in the act of progression; and that the superior surface of the cuboid bone looks directly downwards, and transmits the weight of the body directly to the ground. An appearance of narrowing in the transverse arch of the foot results from this change in the relative position of the tarsal bones and of the phalanges; and externally is added to by a longitudinal fold in the skin, or furrow described in the external appearance of the foot in adult varus.

This so-called "unfolding of the transverse arch of the foot," or, as it may be more correctly called, "the restoration of the cuboid bone, and corresponding metatarsal bones, to their normal position," cannot be accomplished by any simple everting power, such as the side-spring of the Scarpa's shoe, or the straight splint which is sometimes used, even in the

adult deformity. It has seemed to me that the appearance of narrowing of the transverse arch of the foot is increased after the foot has been everted by the straight splint.

At any rate, it is found in practice that some special apparatus must be employed "to unfold the transverse arch of the foot." Mr. Tamplin uses a contrivance by which an uplifting force is applied to the cuboid and fifth metatarsal bones, and at the same time a depressing force is applied to the inner side of the dorsum; the force is regulated by a screw placed on the dorsum of the foot. Mr. Lonsdale uses a very ingenious screw apparatus of his own invention with a similar object, attached to the sole of the Scarpa's shoe. The necessity for any special apparatus for the above object is, however, superseded by the apparatus which I have invented for the cure of adult varus (see fig. 49). By this instrument any amount of uplifting force can be directed against the cuboid bone and the fifth metatarsal bone, at the same time that the foot is being everted.

My objections to the Scarpa's shoe as an instrument for talipes varus are, 1. That its construction is not in accordance with the mechanical conditions of the deformity it is employed to remedy. 2. That it is very apt to cause sloughs from undue pressure, which its faulty construction—in reference to the cure of varus—renders necessary. 3. That it exerts no influence over the rotation of the anterior portion of the foot—a very important part of the adult deformity, very difficult to remove, and for which it is necessary to use a special apparatus in addition to the Scarpa's shoe.

In support of the first objection I need only refer you to the demonstration I have already given of the twofold division of the foot; the situation of the two principal centres of motion; and the planes in which the anterior and posterior portions of the foot move in the production of varus. I have shown you that the anterior and posterior portions of the foot move in different planes, and at right angles to each other, in the simplest form of varus in the infant; and that by a complication of a movement of rotation, and further shortening of the foot in the adult, the sole of the foot becomes twisted, so as to look upwards and backwards, and is brought into opposite relation to the internal lateral aspect of the os calcis (see fig. 37).

Now you will at once perceive that the straight sole and foot-piece of the Scarpa's shoe cannot be adapted to this complicated distortion of the foot.

If the different portions of the foot retained their normal relations to each other, while the whole foot suffered deviation in any given direction, then the straight sole of the Scarpa's shoe might be adapted to the foot by a series of levers and cog-wheels, and the whole foot might be thus restored to its normal position; but as the relations of the component parts of the foot to each other are materially altered in varus, and as it is an established rule of practice, first to restore these altered relations—or as they may be considered secondary movements—and bring the foot into the simplest form of distortion, viz., talipes equinus; and then by acting upon the whole foot to complete its restoration of form, it must be obvious that the Scarpa's shoe is very ill adapted to accomplish separately these different objects, and from its imperfections in this respect arises *the second objection to its use*, viz. its liability to produce sloughs. When the Scarpa's shoe is used to produce eversion of the foot, the heel is fixed in the shoe, and the strap which surrounds the anterior part of the foot is fastened to the spring on the outside of the shoe, fig. 25, *h*, so that the anterior border of the outside of the heel, (plate 66,) becomes the fulcrum. This I need hardly say is very ill adapted for such a purpose, as the pressure is against an edge rather than a surface, and therefore sloughs frequently result. Also, when any attempt is made to alter the plane of the sole of the foot, to elevate the outer border—by means of the lateral cog-wheel, (*l*)—the upper border of the outer side of the heel-plate presses against the foot, either upon the outer malleolus if the heel-plate is high, or below it if it is low, and sloughs are apt to result. Thus in the attempt to accomplish either of these objects—both of which must be accomplished—the risk of sloughs from pressure is incurred. This risk is completely removed in the apparatus I shall introduce to your notice, in which no pressure is made on the outer side of the foot, and the whole of the resistance to the active force employed in everting the foot is transferred to the outer side of the leg. It is true that, by careful attention and padding, such sloughs from pressure are not often seen at the Orthopædic Hospital, but this is due to the extreme care with which the apparatus is used, and even then, sloughs are occasionally produced—in paralytic cases constant care is required to prevent such mishaps; but in the general Hospitals, sloughs almost constantly follow the long-continued use of the Scarpa's shoe. Mr. Tamplin says, "It will require the greatest vigilance to prevent a slough on the points of pressure." (b) Dr. Little tell us that "an adolescent case of double congenital varus was admitted into the London Hospital, under the care of Mr. Critchett, which had been rejected as incurable from another Hospital on account of large ulcers with necrosis of dorsum of each foot, induced by pressure during the mechanical treatment after tenotomy. As the unhealthy character of the ulcers depended upon want of air and exercise, and the application of suitable instruments was impossible, it was determined to repeat tenotomy, and effect forcible manipulations of the members. Chloroform was upon one occasion employed. By these means the feet were gradually straightened, cicatrisation of the ulcers was thereby favoured, and within three months the lad quitted the Hospital." (c) I recollect a boy who went through a very prolonged and unsuccessful course of treatment, in which sloughs and intractable ulcerations formed, in St. Thomas's Hospital. This boy was afterwards admitted into the London Hospital; and wearied of treatment and injured health, both the boy and his father requested amputation, which, however, was refused, and the boy was sent to the country for change of air. I have witnessed several cases of prolonged treatment from sloughs; return of the deformity during the necessary intermission of treatment; repeated operations, and ultimately very imperfect cures; and I am disposed to think that such a series of events is the rule, rather than the exception, when severe and rigid cases are undertaken at the general Hospitals. The intractable nature of these ulcerations on the dorsum and outer side of the foot, whether produced by the Scarpa's shoe or from walking, I have previously described as depending upon the defective nutrition in these limbs, and also upon the peculiarity of the structures involved, viz, indurated skin and cellular tissue, and the bursa which constantly exists in this situation. The leg which I exhibited to you, (figs. 36, 37, and 38,) you will remember was amputated in consequence of such ulcerations produced by walking on the deformed foot.

When the Scarpa's shoe is employed to overcome the inversion in a severe case of varus, such risks as those described must be incurred, and the danger will only be prevented by constant care and attention; but by the use of the instrument which I shall presently describe to you all such risks are completely removed, because the apparatus is not even in contact with the outer side of the foot.

The third objection to the Scarpa's shoe, viz., that it exerts no influence over the rotation of the anterior portion of the foot, is self-evident, and an additional proof of the defective mechanical construction of the instrument in its application to varus.

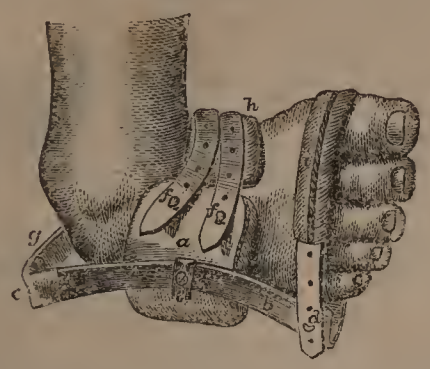
Having now shown you in what respects the Scarpa's shoe appears to me to be an unscientific and dangerous instrument for the treatment of varus, that is, for the removal of the inversion, or varus-portion of the deformity—the first stage of the treatment—you will not be surprised to hear that Scarpa never employed it for this purpose. He knew that it was not adapted to this stage of the treatment, and used it only for the removal of the equinus, or the second stage of the treatment. I have told you that Scarpa divided his treatment of talipes varus into two distinct stages, as we do at present. He describes the apparatus which we call the "Scarpa's shoe" as his "*second apparatus*," and recommends it to be used only after the complete removal of the inversion of the anterior part of the foot by another form of apparatus, the drawing of which I now exhibit to you. (See fig. 47, taken from Scarpa.) (d)

Scarpa observes, "The apparatus intended for correcting the deformity of congenital club-feet, which I am now to describe, consists of several *springs*, and as the cure of this disease is divided into two stages, the elastic apparatus likewise consists of two parts. The first is intended merely for turning the fore part of the foot from within outwards, as far

(b) Op. cit., page 60. (c) On Deformities, page 306.
(d) Memoir on the Congenital Club-feet of Children. Translated by J. H. Wishart. Edinburgh. 1818. Plate II. fig. 2 and 3. First Edition. 4to. Pavia. 1803.

as its natural position and direction with the tibia. The second part of this apparatus (what we now call the Scarpa's shoe—W. A.) is intended for retaining the fore part of the foot in its regained position with the tibia, and with the external malleolus, and for correcting the heel, and retaining the tibia and fibula steadily perpendicular to the *astragalus*." (e)

Fig. 47.



Apparatus used by Scarpa for correcting the inversion of the foot. The first stage of mechanical treatment. *a*. The semicircular spring, or fulcrum. *b*. The horizontal spring. *c*. The posterior extremity of the horizontal spring. *d*. The knob situated on the anterior extremity of the horizontal spring. *e*. The screw intended for fixing the horizontal spring upon the fulcrum. *f.f*. Two small knobs for fixing the strap *g* to the fulcrum. *g*. The strap which passes from behind the heel over the upper part of the foot, and unites the posterior extremity of the horizontal spring to the two knobs on the fulcrum. *h*. A soft cushion of old linen. *i*. The padded strap, which connects the apex of the foot to the anterior extremity of the horizontal spring.

This apparatus is now of historical rather than practical interest; but it shows the care with which Scarpa avoided the liability to sloughs from undue pressure, above described, by placing a broad and well-padded fulcrum on the convexity of the foot.

(To be continued.)

ORIGINAL COMMUNICATIONS.

NEW METHOD

OF INVESTIGATING THE EFFECT OF

METEOROLOGICAL CHANGES AND CONDITIONS ON HUMAN LIFE.

By JAMES MORRIS, M.D.

The effect produced by climate and weather upon human life has been the subject of much discussion. Most authors have contented themselves with endeavouring to specify the quality or kind of effect resulting from any given meteorological cause, without attempting to estimate its quantity or amount, or to determine the time and manner of its occurrence; this requires a closer study. Before entering into our investigation in detail it will be desirable to present a few general considerations in elucidation of the method actually employed, which may, perhaps, be called the "The Method of Differences." Let the total mortality of London be compared to the depth of water in the sea; this we may regard as influenced by various causes, but of these the most important are of a permanent character, such as habitations, food, air, soil, level, moral condition, etc.; while the effect of occasional or cyclical conditions,—as cold, heat, wind, rain, moisture, drought, etc.,—may be likened to the tides and waves on the surface, high or low, gentle or tempestuous, but never affecting permanently the depth of water. Waves and tides cannot be studied by observations on the mean depth of the ocean, neither can the effect of meteorological phenomena on mortality be estimated by the comparison of mean quantities. It was to study these tides and waves affecting the surface of the mortality, that I constructed three years ago the tables, to give an account of which is the object of this paper.

(c) Op. cit., p. 24.

As in physics, when a moveable body is acted on by various forces, each produces its own effect independently of the others, and however complicated be the path of the moving body, yet is the effect of each force precisely in accordance with known laws; so, although the causes determining the amount of mortality may be very numerous and recondite, yet the effect of each should be exerted in accordance with laws not the less absolute because they are less known. The causes of the rise and fall of the wave of death, doubtless at times exhibit a combined effect, at times neutralize each other by acting in opposite directions; but as a cause constantly produces its own effect, whether that effect be neutralized or not, we should, in order to discover the amount of effect due to any special cause, note the apparent effect following that cause on a large number of occasions, and the mean of these will be the quantity of its real effect. If the scale of our calculations be sufficiently extensive, disturbing causes will neutralize one another.

Taking the weekly tables of the Registrar-General, it would be possible, by noting the number of deaths occurring in a large number of weeks, each following some given meteorological condition, and comparing the mean of the numbers so obtained with the average mortality, to arrive at an approximation to the effect produced by the given condition; but, except in the case of diseases, which contribute but a very small proportion to the weekly mortality, and where the smallness of the numbers makes the results of less value, the figures to be dealt with soon become so unwieldy, and the corrections necessary on account of increase of population so difficult, as to afford a ready explanation of the fact, that no calculations of the kind have been made. In order to obtain intelligible and trustworthy results, it is necessary to extend our basis over a lengthened period; but it is not enough to set down side by side the mean mortality and the mean meteorological condition, and, although in this way results of some value have been, and may be obtained, still for most purposes more is required. The long period must be divided into portions, the smaller and more numerous the better; the meteorology and mortality of each must be registered; such data we have in the weekly returns. Now, in tables of this nature, any effect produced can only be exhibited in the form either of an increase or a diminution of the weekly mortality. Let us then tabulate these changes occurring in the mortality from week to week, denoting increase by the sign +, and diminution by the sign —. Resuming our metaphor, these numbers, with their signs prefixed, denote the rise and fall of the death-wave, the depth of the water, the actual mortality, being left out of account. Let us classify the weeks according to some meteorological character, when simple algebraic addition immediately offers us the means of combining the effects produced, divide the result by the number of weeks in which our previously selected condition has occurred, and, if the basis of our calculations be wide enough, the quotient will indicate the amount of the effect produced, while its sign will indicate its kind.

By this method no comparison is ever instituted, except between weeks which are in immediate succession; and the correction for increase of population, which would otherwise be very troublesome, becomes a simple matter. The following tables have been extended over a period of fourteen years, 1840—1853 inclusive, containing 730 weeks; they have reference only to the effect produced by continued temperature, and by changes of temperature upon the total mortality. Those showing the effect of the same agents upon the zymotic class and its members have been completed for the same period; the field is very extensive, and but a little corner of it has as yet been occupied. For brevity's sake, let us call the increase or diminution of mortality from week to week the "death-change." It will be evident, after a moment's reflection on the subject, that the continuance of a certain temperature, for instance, may produce an effect upon the mortality which will not all be exhibited in the death-change which immediately succeeds it, but may be spread over the succeeding death-changes for a very considerable period; and hence it has been necessary to take account of the fluctuations of mortality through a period of four weeks, and even then

the tables show, in many cases, that the whole of the effect has not passed away; but it is now desirable to postpone further explanations, and to submit the first table of results, in which the calculation has not reached its final and more intelligible stage, which follows below :—

Table showing the effect upon the total Mortality of London caused by various Temperatures.

Weekly mean temperature.	Number of occurrences.	Next death change.	Second death change.	Third death change.	Fourth death change.	Remaining excess or defect of mortality after 4 weeks.
20° to 25°	1	+ 69	— 131	— 22	— 181	— 265
25 to 30	13	+ 704	— 338	— 980	— 781	—1395
30 to 35	38	+1805	— 614	—1734	— 185	— 728
35 to 40	77	+2851	—1595	— 326	—1140	— 210
40 to 45	123	— 411	+1359	+ 436	—1275	+ 109
45 to 50	138	—2080	— 900	+1196	+ 261	—2423
50 to 55	89	—1341	+1250	+ 900	+2873	+3682
55 to 60	130	—1818	— 557	+ 604	+1227	— 544
60 to 65	100	+1047	+1526	— 474	— 774	+1325
65 to 70	19	+ 749	+ 445	+ 517	+ 124	+1835
70 to 75	2	— 198	+ 50	+ 162	+ 194	+ 208
		+ 477	+ 495	+ 279	+ 343	+1594

The first column contains merely a division of the weekly mean temperatures into fasciculi of five degrees (Fahrenheit), an arrangement adopted merely from motives of convenience. In the second column stands the number of weeks whose mean temperature falls in each fasciculus; and here, in passing, we may notice a curious fact, that the mean temperatures of fewer weeks fall between 50° and 55° than in either of the two preceding or the two succeeding fasciculi. This would seem to be due to the rapid approach of the sun about the time of the vernal equinox, and his correspondingly rapid departure at the autumnal, dependent on the form of the ecliptic, and the great angle which it makes with the equator at the points of intersection. The third column is occupied by numbers formed by combining, by algebraic addition, the death-changes occurring at the termination of all the weeks which form the fasciculus to which they belong. In order to find the effect to be expected in any single week, these numbers must be divided by the corresponding number in the previous column. In order, however, to avoid fractions, and on account of the magnitude of disturbing causes,—as, for instance, cholera, influenza, and the irregular registration of inquests,—it has appeared desirable to leave this table in its present form. The fourth, fifth, and sixth columns contain the combined death-changes occurring exactly one week later than those in the column immediately preceding each of them. The last column is formed by addition of the numbers on the same line in the four previous columns. It shows whether and by how much the mortality of the whole four weeks was above or below that of the weeks which formed in each line our starting-point. In such a table, a steady increase of mortality during the period which forms the basis of our calculation, whether it be due to augmented population or to any other cause, shows itself in an excess distributed among the positive quantities, and a defect among the negative; in the third, fourth, fifth, and sixth columns the numbers whose sign is + are together greater than they should be by about 200, while those whose sign is — are deficient to the same extent. The exact amount of this error is shown by the number at the base of each column. In the last column the same fault occurs to a fourfold extent, the error here being the sum of the other four.

So far it has been necessary to enter into a somewhat tedious explanation of the method of procedure employed, which, however, has been rendered as brief as possible. Before proceeding to interpret the results, it only remains to add, that at every step the calculations have been subjected to such proofs as almost to preclude the possibility of arithmetical errors. After applying the correction just referred to, for increasing population, the mean results may, I think, be most intelligibly stated as follow, fractions being rejected, and the nearest whole numbers adopted.

I. As calculated upon an average of 129 weeks (see the first four lines of the previous table), the effect due to a mean weekly temperature below 40° is to increase the total mortality of London in the following week by 41, at the termination of which a diminution of 22 occurs, still leaving, however, an excess of 19. At the end of this second week a further diminution of 25 occurs, thus bringing the deaths 6 below the average of those which formed our starting-point. Another week shows a further depression of the mortality by 19, leaving, where our calculations cease, a deficiency of 25 during the period elapsed.

II. An examination of 480 weeks (see 5th, 6th, 7th, and 8th lines of table), having a mean temperature of from 40° to 60°, together with a comparison with and among their successors, shows that the first effect of such moderate temperature is to diminish the weekly mortality by 14; three weeks later this deficiency is a little more than made up.

III. The effect of high temperature may be judged of from the results following 121 weeks, having a mean temperature of 60° and upwards (see last three lines of table). An average increase of 11 occurred in the mortality of the following week, in the next a further increase of 14, after which the effect began to die away, leaving, however, where the calculations terminate, an excess of 22.

A short table, which will be readily understood by those who have read the foregoing with attention, will enable the eye to take in the above results at a glance :—

Base of calculation.	Mean temperature.	1st death change.	2nd death change.	3rd death change.	4th death change.	Remaining effect.
129 weeks.	Below 40°	+41	—22	—25	—19	—25
480 weeks.	40° to 60°	—14	+ 2	+ 6	+ 7	+ 1
121 weeks.	60° and upwards	+11	+14	+ 1	— 4	+22

Before proceeding to comment on these results, let us add the following :—

Table showing the effect produced upon the total Mortality of London by Rise and Fall of Temperature.

Changes of the weekly mean temperature.	Number of occurrences.	Death changes occurring simultaneously.	Death changes after 1 week.	Death changes after 2 weeks.	Death changes after 3 weeks.	Death changes after 4 weeks.	Excess or defect of mortality after 4 weeks.
+16° to +18°	1	+ 106	— 209	— 36	+ 18	+ 88	— 33
+14 to +16	1	— 9	— 238	— 44	+ 22	— 24	— 293
+12 to +14	2	— 124	— 247	+ 12	— 93	— 33	— 485
+10 to +12	9	+ 698	—1039	— 509	+ 16	— 66	— 900
+ 8 to +10	26	+1361	—2239	+ 513	— 233	— 449	—1047
+ 6 to + 8	37	+ 708	—1263	— 817	+1130	+ 56	— 186
+ 4 to + 6	61	+ 485	— 433	— 668	— 744	+ 34	— 460
+ 2 to + 4	101	+ 381	—2085	+1753	— 511	+1089	+ 627
0 to + 2	116	+2941	—2633	+ 25	—1271	+ 119	— 819
0 to — 2	136	—1203	+1419	— 76	+1482	— 46	+1576
— 2 to — 4	99	—2072	+1891	—1133	+ 870	— 166	— 610
— 4 to — 6	72	— 899	+2326	— 89	— 87	+ 353	+1604
— 6 to — 8	43	— 154	+1081	+ 911	+ 171	— 333	+1676
— 8 to —10	17	— 585	+1613	+1229	— 689	— 281	+1287
—10 to —12	5	— 964	+ 920	— 548	+ 11	— 89	— 670
—12 to —14	4	— 193	+ 765	— 244	+ 251	+ 134	+ 713
		+ 477	+ 495	+ 279	+ 343	+ 386	+1980

In the first column we have a classification of the changes occurring in the mean temperature from week to week; increase (denoted by the sign +) forming the upper part of it, and diminution (as indicated by the sign —) the lower; they are divided arbitrarily, for convenience' sake, into fasciculi, each embracing two degrees of increase or diminution of temperature. The second column shows the number comprised in each fasciculus, 730 in all. The other columns are exactly analogous to those in the previous table, with this difference, that the first of them (third column), is formed from death-changes exactly simultaneous with the heat-changes noted in the first column. The numbers denoting the correction required for population stand below.

Let us endeavour to state the chief results in a more easily

intelligible form, applying the correction, and reducing as before, thus :—

Number of changes of weekly mean temperature.	Average amount of ditto.	Death changes occurring simultaneously.	Ditto after 1 week.	Ditto after 2 weeks.	Ditto after 3 weeks.	Ditto after 4 weeks.	Remaining effect.
354	+3°·88	+18	—27	..	—5	+1	—13
376	—3°·65	—17	+26	..	+5	—1	+13

Or, more expanded, as follows :—

Number of changes of weekly mean temperature.	Average amount of ditto.	Death changes occurring simultaneously.	Ditto after 1 week.	Ditto after 2 weeks.	Ditto after 3 weeks.	Ditto after 4 weeks.	Remaining effect.
137	+6°·97	+23	—36	—12	+1	—3	—27
217	+1°·93	+15	—22	+ 8	—9	+4	— 4
235	—1°·84	—16	+15	— 5	+9	—1	+ 2
141	—6°·67	—21	+47	+ 8	—3	—2	+29

The above conclusions may be verbally stated thus :—

I. That on 354 occasions on which the mean temperature of some week exceeded that of its immediate predecessor, the average amount of such excess being 3°·88, the mean result was as follows : that there occurred, simultaneously with the increase of temperature, an increase in the deaths to the extent of 18 ; after one week, this was more than counterbalanced by a decrease of 27, which was maintained, and even somewhat increased, leaving, after the lapse of four entire weeks, the mortality still 13 below the level at the beginning.

II. That on 376 occasions on which the mean temperature of a week was less than that of its predecessor by an average amount of 3°·65, the total mortality underwent simultaneously a diminution of 17 ; that after one week an increase of 26 occurred, leaving the mortality 9 above the average ; that at the termination of four weeks this excess amounted to 13.

III. In the second table we see that the greater changes of temperature are, as might be expected, followed by a greater effect, and not only so, but it is also continued over a larger number of weeks. Thus 141 falls of the weekly mean temperature, averaging 6°·67, were causing on an average, after the lapse of four entire weeks, an excess of 29 in the weekly mortality ; while, on the other hand, 137 rises, averaging 6° 97′, were producing a corresponding favourable effect.

The above numbers, being but approximations, may be regarded as expressing the augmentation or decrease caused upon every 1000 deaths, since the mean mortality of the whole 730 weeks but little exceeds 1000 (being exactly 1012·47).

The first series of tables should enforce upon us the necessity of preserving a medium and steady temperature in the rooms of the sick and feeble, where, I fear, a thermometer is not yet so common an appendage as it ought to be. Be it remarked, that it is not the low temperatures alone which are to be dreaded, though the immediate fatality which they produce is very great ; but high temperature is seen to be even more pernicious, though the evils resulting from it have in some measure escaped attention, from the fact that they are diffused over a longer interval of time. Let us not fail to observe that after three, and still more after four weeks, the balance is greatly in favour of the low, as compared with the high, and even with the moderate temperatures.

It is a curious result of the second division of our calculations, that the first effect of a rise or fall of temperature, viz., that which occurs simultaneously with it, seems to be exactly the reverse of that which has been generally believed, it may be for want of sufficient care in distinguishing between high temperature and rising temperature, and low temperature and falling temperature respectively ; or, as deaths are not registered till three or four days on an average after their occurrence, this may account in part for the result,—I scarcely think for the whole. To decide this matter would require a registration of deaths on the days to which they belong, to which calculations on this principle might be very advantageously applied. Still the chief effect of comparative cold remains, as generally believed. We have shown above, on an extensive average, that a fall of nearly 7° produces at the end of one week an increase in the deaths to the extent of nearly five per cent. ; a result which we can scarcely hesitate to attribute in great part to the congestive inflammations caused thereby. Many of these cases appear to have a considerable duration ; for after four weeks the augmentation of the mortality is still very serious ; and this long continuance of the effect, though known, of course, in individual cases, has not, I believe, been statistically shown. In conclusion, let me add, that if any reader be sufficiently interested in this subject to desire to study in detail the method by which these computations have been made, I shall be most happy at any time to show the tables, and fully explain them.

Park-street, Grosvenor-square, W.

REMARKS ON THE ANATOMY OF THE SUPRA-RENAL CAPSULES.

By LUDOVIC HIRSCHFIELD, M.D.

Professeur Particulier d'Anatomie à l'Ecole Pratique à Paris. Translated by C. F. Maunder, F.R.C.S., formerly Assistant-Surgeon to the Civil Hospital at Renkioi.

Since Dr. Addison's views respecting disease of the supra-renal capsules have become known, much has been said and written respecting these little bodies. Having obtained a paper upon the anatomy of these glands by Dr. Ludovic Hirschfield, it occurred to me that English readers might be interested to know the opinions entertained by French anatomists concerning these organs.

After some preliminary remarks the author states :—Fixed solidly by numerous vascular and nervous prolongations to the inferior cava, to the aorta, to the renal and inferior diaphragmatic vessels, to the solar, renal, and diaphragmatic plexuses, the supra-renal capsules have no direct communication with the kidney, except by very thin areolar tissue. They never follow the displaced position of the kidneys. In new-born children they are so intimately connected with the kidneys that they appear to be a constituent part of the same. The volume of the capsule depends upon the age, being larger than the kidneys during embryonic life, almost as large as these organs in young children ; far from increasing with age as the other organs, they rather diminish, so as to be only the twentieth or thirtieth part of the size of the kidneys. Variable in different subjects, their size is not the same with every adult, nor with old people, and their volume is not more considerable in the negro race than in the white race, as observation has many times shown. M. Cruveilhier mentions having found them voluminous in several aged women.

Considered as to their dimensions, they differ on the right and on the left. The left capsule has from 32 to 36 millimètres(a) in length, by 26 to 28 in breadth, that on the right side from 29 to 31 in length, by 26 to 28 in breadth, their thickness towards the centre is from 3 to 5 millimètres. The weight, likewise, is not the same for each, sometimes the capsule of the right side is heavier than that of the left, at other times it is the contrary ; on an average, however, it is from 4 to 5 grammes.(b)

In order to study the supra-renal capsules anatomists distinguish two surfaces for each, the one anterior, the other posterior ; and two borders, the one superior, the other inferior. The anterior surface presents near its middle part a groove, more or less transverse, destined to contain the largest of the capsular veins (the middle capsular). On the right side the capsule is found behind the first curve of the duodenum and in a depression on the posterior part of the inferior surface of the liver. On the left it is situated behind the spleen, and the tail of the pancreas. The posterior surface, smaller than the anterior, corresponds on both sides to the semilunar

(a) One line English = 2·1166 millimètres French.
(b) One gramme French = 15·438 grains troy English.

ganglion and to the diaphragm. The inferior border or base, large and excavated, is moulded to the convexity of the superior extremity of the kidney, to which it adheres by loose adipose tissue. The superior border, sometimes curved, sometimes straight, at other times semilunar, is applied to the liver on the right, and to the spleen on the left side. In making a section of the supra-renal capsule from the inferior to the superior border one appears to find a triangular cavity of a darker colour than the external surface, from the inferior part of which arises a small oblong crest. This cavity is only illusive, and results probably from the separation of the anterior and posterior walls after a previous rupture of the loose and delicate cellular tissue which united them, or, perhaps, as M. Rayer remarked, from the extravasation of blood following the rupture of the capsular veins. These contiguous surfaces are bathed in a humour, the consistence and colour of which vary with the subjects; of a dark hue in the adult, it is reddish and more abundant in the fœtus.

Structure.—There is in the composition of each capsule an enveloping membrane and a special tissue. 1. The enveloping membrane is formed of cellular tissue, mixed with elastic fibres. Its superficial surface is surrounded by a cellular fatty tissue, to which it is adherent by fibro-vascular prolongations; its deep surface sends into the substance of the body a multitude of prolongations, which divide it into numerous segments. 2. The substance proper, or parenchyma, is composed of two substances, juxtaposed, but quite distinct one from the other; one, external, is called the cortical substance; the other, internal, is called medullary substance.

(A.) Cortical substance, yellowish, and of rather firm consistence, with an average thickness of 2 millimètr. This thickness is divided into a considerable number of cavities by very thin lamellæ, united, and constituting a mass of conjunctive tissue, which enters into the composition of the cortical substance. Each cavity has a vertical direction in the substance, and a breadth which varies from 0·35 to 0·5 mil., and which is observed even to increase to 0·7. mil.

Some anatomists have found in these cavities utricles, each of which has an amorphous membrane, inclosing a substance of a granular nature, with which nuclei and cells are blended. According to Kölika, the cavities contain polygonal cells, from 0·14 to 0·27 mil, independent of each other, on both sides of the cortical substance, and united into cylindrical masses in the middle of this substance. Contrary to the opinion of D'Ecker, this same anatomist maintains that true utricles are found only in the internal portions, where they present themselves under a spherical or ovoid form, having a diameter from 0·5 to 0·7 mil., and containing masses of granular fat. The yellowish colour presented by the cortical substance is in consequence of the cells being entirely filled with granular fat, which gives them a great resemblance to the cells of the liver in a pathological state. These fatty granulations are added to the contents of the cells, formed in the normal state of minute granulations of a nitrogenized nature. In the deepest stratum of the cortical substance, that which borders on the medullary substance, and which is more coloured, are found vesicles containing pigment granules of a brown colour. (B.) Medullary substance. It is less solid, and has only a third of the thickness of the cortical substance. From its centre arises the middle capsular vein, and throughout its extent there is found a great number of nerves and vessels, principally veins, which explains its deep colour and spongy aspect. By decomposition it changes quickly into a brown pulp, incorporated with blood; it is therefore necessary to study it immediately after death. It appears then under the form of thin lamellæ of cellular tissue, which are continuous with the septum of the cortical substance, forming a network of rounded and narrow meshes. One finds in this network a delicate granular substance, which contains pale cells of a diameter from 00·18 to 00·35 mil.

It contains some few fatty and pigmentary granules with nuclei and nucleoli. These pale cells have the appearance of ganglionic corpuscles, and remind one to a certain extent of the cells of the nervous system; but they cannot be confounded. The capsular blood vessels, the capsular arteries, very numerous and variable in number, emanate from three sources, and are divided into superior, middle, and inferior. The superior capsular arteries arise from the inferior diaphragmatic arteries; they are very numerous and small, and reach the superior part of the capsule, in which they are lost. The middle capsular, larger and less numerous, sometimes even single, arise directly from the aorta, and are distributed to the anterior and posterior parts of the capsule. The inferior capsular arteries come from the renal artery. All the capsular arteries anastomose freely with each other, being lost on the surface of the capsule.

The capsular veins do not vary generally so much as the corresponding arteries; their number being nearly always the same. On each side is found oftentimes a principal vein, the middle capsular, the size of which, especially on the right side, equals almost that of the external jugular vein. These veins, remarkable by their calibre, and by the absence of valves, course along the groove on the anterior surface of the capsules, and having received in their course the ramifications proper to the capsule, some fine branches from the surrounding fat, and the inferior diaphragmatic branches empty themselves, the right usually into the inferior cava, immediately under the liver; and the left, taking a longer course, opens into the corresponding renal vein. Independent of these principal veins, the supra-renal capsules have other venous branches, very fine and variable in number; they are the superior and inferior capsular. The former empty themselves into the diaphragmatic veins, the latter into the renal veins; it is not as yet shown positively that the capsular veins have no direct communication with the interior of the capsules, as has been maintained by some anatomists. The lymphatic vessels of the capsule are proportionately voluminous; some are superficial, others deep; those of the right side lead to the lymphatic glands, which are disseminated around the inferior vena cava; those of the left side conduct to the glands placed in front of the corresponding pillar of the diaphragm.

The capsular nerves, very numerous and small, arise like the capsular arteries from three sources, and are distinguished into superior, middle, and inferior. The superior come from the diaphragmatic plexus; the middle, more numerous, spring directly from the semilunar ganglia, and from the solar plexus; while the inferior are provided by the renal plexus. Bergmann mentions having seen nerves springing out from the semilunar ganglion, cross the border of the capsule, and return to the semilunar ganglion so as to form in their course small loops.

I have sought for this latter anatomical arrangement, but have never succeeded in finding it.

CANCER OF THE LIVER—GALL-STONES.

A CASE, WITH CLINICAL REMARKS,

By GEORGE BUDD, M.D., F.R.S.

Professor of Medicine in King's College.

Elizabeth Cross, a married woman, 50 years of age, the mother of fifteen children, was admitted into King's College Hospital on the 7th of May, 1857. She stated that she had spent all her life in London, and that, except during her confinements, she had never been laid up a single day till her present illness came on. There was no family history of cancer. About a year ago, while coughing, she felt "a catch" in the right side, and on examination discovered a tumour, about the size of an egg, just below the cartilages of the eighth and ninth ribs. The tumour slowly increased in size, but until January last she suffered no other marked inconvenience from it than occasional shooting pains in the situation of the tumour, and dragging sensations when she carried any heavy weight. By January, however, the tumour had increased a good deal in size, and the pain in it had become more severe. She then applied at St. George's Hospital, where she was admitted, and remained three weeks. During her stay in the Hospital the tumour grew much larger, she suffered pain under the right clavicle, lost her appetite, and fell away greatly in flesh and strength. From that time the tumour

went on increasing in size, and she became more and more emaciated. She was confined almost constantly to her bed, and her sleep was much broken by the severity of the pain, which she described as a gnawing, bursting pain round the lower edge of the ribs. She complained, also, of occasional pain under the right clavicle. She was troubled at times by vomiting and nausea, but the bowels were regular throughout. Towards the end of February, ten or eleven weeks before she fell under our observation, jaundice came on.

When admitted into King's College Hospital she was very much emaciated and deeply jaundiced. The right lobe of the liver was felt to be immensely enlarged, filling the right side of the belly, and extending into the pelvis; and a little above and to the right of the situation of the gall-bladder a large nodulated tumour, very tender to the touch, projected above its general surface. The left lobe of the liver was enlarged in a very much less degree. The stomach was pushed downwards, and projected on the left side of the tumour. She lay constantly on her right side, as any other posture caused uneasiness from the weight of the tumour, and complained of shooting pains in the tumour, and of pain and tightness round the lower edge of the ribs, and under the right clavicle. She had no appetite, and could not sleep without an opiate, and altogether was in great distress.

It was plain enough that the disease was cancer of the liver. The only other disease presenting characters at all like it is an hydatid tumour of the liver. But an hydatid tumour of the liver is of much slower growth, and causes much less rapid wasting, and, for a long time at least, much less constitutional disturbance. When an hydatid tumour has attained a large size, there is generally evidence that the tumour has existed many years, and even then there may be no great reduction of flesh and strength; but cancerous disease of the liver generally destroys life within little more than twelve months, almost always within two years; and when it has existed many months it generally causes rapid wasting, and a state of anæmia, which is very striking if there be no jaundice to conceal it. The degree of pain caused by cancer of the liver is very variable. Sometimes, as in the case of this poor woman, the pain resulting from it is very great. In other cases, even when the disease is far advanced, and the cancerous tumours are numerous, or one of them is as large as the tumour in this case, the liver is the seat of very little positive pain, and may be freely handled without exciting complaint.

On the conviction that the disease in the case of Mrs. Cross was cancer, the only remedies employed were sedatives. Three minims of dilute hydrocyanic acid, in an effervescing draught, three times a day, an hour before food, and a dose of morphia at night.

On the 15th of May, when she had been in the Hospital a week, diarrhœa occurred, and the effervescing draughts were exchanged for astringents.

On the evening of the 16th, profuse nose-bleeding came on, only restrained by plugging the nostril.

Her remnant of strength was consumed by the diarrhœa and hæmorrhage, and she died exhausted on the evening of the 17th.

On an examination of the body, the liver was found to be studded with cancerous tumours, and to be greatly enlarged, the right lobe extending into the pelvis. On that part of it where the large tumour was felt during life, the cancer extended from the anterior surface of the liver to the posterior surface,—the whole of the hepatic tissue intervening between the two surfaces being converted into cancerous tissue, which contained within it some biliary pigment. The specimen was well calculated to show the mode of growth of cancerous tumours of the liver. An hydatid tumour of the liver, as it grows, pushes aside and compresses the hepatic tissue contiguous to it; but a cancerous tumour involves the surrounding tissue in its own mass. The cancerous matter filters, as it were, into the adjacent tissue, and converts it into cancer; and if the original tissue was deeply stained by the biliary pigment, as it always is after the occurrence of jaundice, the cancer which takes its place contains, entangled in its meshes, the biliary pigment.

Another circumstance worthy of note is that, notwithstanding the great degree to which the liver was enlarged and deformed by the cancer, the liver had no unnatural adhesions, and presented no marks of inflammation on its capsule. A cancerous tumour resembles an hydatid tumour and other parasitic growths in this respect,—that it does not necessarily excite any inflammatory process, which, when it occurs, is to be regarded as an accident, and not as a constant or necessary result of the disease.

The cancer was almost confined to the liver. The only traces of the disease that we remarked beyond the liver consisted in a cancerous enlargement of the lymphatic glands about the common gall-duct—which, by the pressure they exerted on the duct, caused the jaundice—and two small, waxy-looking spots of cancer on the surface of the lower lobe of the right lung.

The case was as simple a case of cancer of the liver as it is possible to meet with. The cancer originated in the liver, and destroyed life by its growth and extension in this organ. The liver was found to be 8 lbs. 15 oz. in weight. There must therefore, have been about 5 lbs. of cancer, which is solid albuminous matter, formed at the expense of the blood. Now blood contains only about one-fifth of its own weight of albuminous materials. There must, consequently, have been consumed in the growth of this cancer, on a moderate calculation, as much albumen as is contained in 20 lbs. of blood. No wonder that the disease exhausts the strength, and causes such striking anæmia. The exhausting power of the disease increases as the disease advances. At first, when there is only a single cancerous tumour, the patient may lose flesh and become anæmic very slowly; several months may elapse without any remarkable change in his condition; but, after a time, when there is a great amount of cancer, and when a great number of distinct tumours have formed, every one of which is constantly drawing upon the blood for materials for its growth, the loss of flesh, and the diminution in amount of organic constituents in the blood, is very rapid. Like a ball rolling down hill, the disease makes continually more and more rapid progress. This was well illustrated in the case before us. The poor woman stated that up to her admission to St. George's Hospital—when the disease had existed at least seven or eight months—she could attend to her household duties; but that when she left the Hospital, after a stay there of three weeks, she was unable to walk.

In this case there had never been any symptoms indicating the passage of gall stones; but when the body was examined, the gall-bladder was found distended by a mass of gall-stones, and its coats were much thickened. The gall-stones, which were 420 in number, were white on the outside, and looked very much like a mass of grains of Indian corn, and had the appearance of having been all formed at the same time. Each of them that was cut across had a small dark olive-coloured nucleus; and the remainder and greater part of the stone was composed of cholesterine, unstained by bile. The explanation of these characters of the stones was found in the fact that the cystic duct was completely obliterated, and appeared to have long been so. There can be little doubt that the formation of the stones took place in this wise:—The cystic duct became permanently closed when the gall-bladder was filled with bile,—perhaps unhealthy bile. This retained bile was concentrated by absorption, as bile unduly retained in the gall-bladder always is, and threw down a mass of gritty particles—a kind of biliary gravel—which is composed chiefly of a compound of biliary pigment and lime. The portion of bile remaining liquid was absorbed by the coats of the gall-bladder, and the biliary gravel was left. The coats of the gall-bladder now secreted cholesterine, which crystallized round the particles of biliary gravel, so as to form the gall-stones.

The cholesterine which forms the great part of the stones was derived, not from the bile, but from the coats of the gall-bladder, and was not stained by bile, as the cholesterine of gall-stones usually is, because it was secreted by the coats of the gall-bladder after the liquid bile in the gall-bladder had been absorbed, and when, in consequence of closure of the cystic duct, no fresh bile could pass into it.

Dr. Budd exhibited two preparations from the Museum of King's College, giving similar evidence respecting the formation of gall-stones. One of them is a gall-bladder filled with gall-stones, placed in the museum by himself. The gall-stones, like those found in Mrs. Cross, are composed of a small dark nucleus, surrounded with perfectly white cholesterine. The other preparation exhibited in the gall-bladder a single, very large oval stone, which, with the exception of a small nucleus, was perfectly white, like a ball of camphor or

white marble. In both preparations, as in the case of Mrs. Cross, the cystic duct was obliterated.

When the cystic duct becomes permanently closed, and the coats of the gall-bladder secrete cholesterine, the number of gall-stones formed depends on the number of solid particles which may be left when the retained bile is absorbed. If many solid particles are left, cholesterine will crystallise round each particle, and many stones will be formed, which will be rendered angular by their mutual attrition, but will all be very much alike. If only one particle is left, all the cholesterine will collect round this particle, and a single large round or oval stone will be formed; but in any case the stone or stones will be white on the surface, because the cholesterine was secreted by the coats of the gall-bladder when there was no bile there to stain it.

The coincidence of cancer of the liver with gall-stones, which existed in the case of Mrs. Cross, is not uncommon, and occasionally leads to an erroneous, or rather to an incomplete, diagnosis of the actual condition of the patient. Symptoms pretty clearly indicating the passage of gall-stones occur before there is positive evidence of cancer. The common duct may be blocked up by a gall-stone or a cancerous tumour, causing persisting jaundice; and enlargement of the liver, which takes place subsequently, is attributed to retention of the bile. The illness is attributed to gall-stones, but, after a time, the surface of the enlarged liver is felt to be nodulous or uneven, the patient wastes more rapidly than in a case of jaundice from simple closure of the common duct, and the disease is discovered to be cancer.

The case of Mrs. Cross is well calculated to make us feel how little we know regarding the causes of cancer. There was no family history of cancer, and the patient herself told us that her health had been remarkably good; that, except during her confinements, she had never been laid up a single day, till, about a year ago, she felt the stitch in her side, which was her first intimation of disease. Why, in this healthy woman, did cancer form and spread so rapidly in the liver? What circumstances led to the liver being the seat of the disease rather than the uterus and the breast, which, in women, are the most frequent seats of cancer? At present no answer can be given to these questions.

THE LONDON

PRACTICE OF MEDICINE AND SURGERY.

ST. GEORGE'S HOSPITAL.

TABLE OF CASES OF COMPOUND FRACTURES, AMPUTATIONS, AND OPERATIONS FOR STRANGULATED HERNIA IN ST. GEORGE'S HOSPITAL, FOR THE YEAR 1855, WITH REMARKS.

(Communicated by T. HOLMES, M.A. Cantab. F.R.C.S., Surgical Registrar to the Hospital.)

I have again to forward to you the annual series of cases of amputation, herniotomy, and compound fracture, occurring in St. George's Hospital for the past year. In doing so, I am obliged again to remark and to deplore the large mortality that they display. This mortality is due entirely to pyæmia in the cases of amputation, in those of hernia chiefly to neglected strangulation. In the table of compound fractures the mortality is due principally to the large number of cases which required amputation, and shows little, except that the cases were more than ordinarily severe. With respect to the prevalence of pyæmia in our Hospitals, I have already urged on your readers (and I am happy to say not quite without effect) the necessity of giving our best attention to discover the causes, atmospheric or other, which originate or predispose to the disease. It has prevailed in St. George's Hospital during the three years that are past to a very lamentable extent, and in the present, I am glad to say, has almost disappeared. Yet the treatment of the cases, the mode of healing wounds, the Hospital arrangements, and every other circumstance surrounding the patients, have remained without material change (without any change, in fact, except the improvements which are continually being made in the building, by our active committee of repairs, and those have not been extensive); nor has any peculiarity been observed in the seasons. This epidemic of pyæmia has been met with quite as extensively out of the Hospital as in it (at least proportionally to the severity of cases and other points of difference that have to be taken into account in comparing Hospital and out-door practice); and though it has apparently ceased in the house, it still prevails in the district around, and I believe in other parts of London. At the same time that pyæmia has been prevalent in our Hospital, all other surgical diseases have been observed to be of a low type, and the quantity of stimulants used in the treatment of cases has in consequence increased to such an extent, as to become a very serious item in our yearly budget. Under these circumstances, the theory lately propounded by your correspondent, Dr. Arnott, which endeavoured to connect the appearance of pyæmia with the administration of chloroform, for the satisfactory reason that one event followed the other (or, in other words, that they were not contemporaneous) has not found much favour with any one whom I have met with; yet I freely confess myself quite unable to substitute another. At present, all we can say is, that this epidemic has appeared in the same way as those of erysipelas and other Hospital diseases, which have been more frequently noticed, and has disappeared like them; and we must be content to hope that improved methods of treatment, and perhaps improvement in the moral and material condition of the poor in the Metropolis, may mitigate or obviate fresh attacks.

With respect to the mortality after hernia, however, I am able to speak with more confidence as to its cause and prevention. The cause lies, I am sorry to say, too often in the inconceivable apathy or ignorance of those who have had charge of the case. It is not without a feeling of disgust (for no milder term is applicable) that we have to listen to the story of patients who have been under the care of Medical men for two or three days. I have even known a case in which the diligence of the Medical man protracted his efforts at reduction over twice that time, and have been exposed not only to the great risk which must always attend a strangulated hernia left unreduced, but also to the additional dangers of repeated and protracted manipulation, when a fair trial given to the taxis at first had shown the uselessness of persisting in that method of treatment. Yet there is no surgical lecture-room in the world where the importance of operating promptly, if at all, in cases of strangulated hernia is not taught,—no pupil such a tyro in surgery as not to look on that doctrine as a matter of course. It is little to the credit of Medical men in our Metropolis that such frequent exceptions should have to be noted to a practice which is now agreed on all hands to be imperatively necessary. Of course, I do not mean that on the first failure of the taxis, at any period of the strangulation, or that of the symptoms, the case is to be condemned for operation; though that would, I believe, be an infinitely more successful plan, especially in femoral hernia, than the expectant treatment; but I think that it is undoubtedly the duty of a surgeon called in to a patient in the poorer class, to send him under such circumstances at once to an Hospital, where the various other remedies (as the warm bath, ice, &c.) can be so much better applied, or the operation performed at once, if necessary. I should not have thought of making remarks savouring so much of the truism, but for the extraordinary, and I must say disgraceful fact, that in this one year, out of a total of only seventeen cases of hernia, there are five in which the strangulation was allowed to last four days and upwards (all of whom died except one), and another, No. 8, in which the violent efforts at reduction appeared to have produced permanent injury to the gut, and to have had a great share in the fatal result which followed. I trust the publication of our experience in this particular may have some effect in reminding Medical men of the vital necessity of prompt measures in a disease which advances so rapidly to a fatal termination.

Table of Cases of Strangulated Hernia operated on at St. George's Hospital, 1855.

No.	Sex and Age.	Occupation.	Nature of Hernia, recent or old; truss worn or not.	Right or Left Extremity.	Period of Strangulation.	Date of Operation.	Contents of sac and their condition.	Sac opened or not.	Result, and at what period.	Remarks.
1	M. 27	Tailor.	Direct inguinal, old; truss.	Left.	About 6 hours.	Jan. 7.	A little serous fluid. A small piece of healthy omentum. A small knuckle of small intestine, not much congested.	Opened.	Cured; 20 days.	The omentum was returned into the belly.
2	F. 50	Cook.	Femoral, 1 year; no truss.	Left.	1 day.	Jan. 29.	A small quantity of serum, containing flakes of lymph. A large knuckle of intestine, coated with lymph.	Opened.	Cured; 30 days.	
3	F. 61	Housekeeper.	Femoral, old; truss.	Left.	4 days.	Feb. 11.	The sac, which was much thickened, contained a little bloody serum, and a small knuckle of the small intestine, of a pink colour, but flaccid, and of a suspicious appearance.	Opened.	Died; 1 day.	The gut was returned after considerable hesitation, on account of its flaccid condition. Shortly after the reduction of the gut, fluid, evidently fæcal in character, flowed by the wound out of the peritoneal cavity. P.-M. examination showed the gut gangrenous in a portion of the part corresponding to the stricture (and therefore not in sight at the time of the operation), and perforated by a small hole at this point. She had been operated on before, on the opposite side, for hernia several years before. The gut was found adhering to the abdominal parietes at that part.
4	M. 54	Labourer.	Congenital inguinal; duration not known; no truss.	Right.	2 days.	Feb. 19.	The sac was formed by the tunica vaginalis, which was greatly thickened, and had been ruptured by an accident. Through this vent the gut protruded. The contents of the sac had been a large quantity of bloody serum, a coil of the small intestine more than a foot in length, several inches of the upper end of the large intestines, and a small piece of omentum. The small intestines and omentum were contused, and showed patches of ecchymosis, but were otherwise healthy.	Opened.	Cured; 37 days.	The history was very obscure, and the symptoms not very well marked. He seemed to be hardly aware of the previous existence of a tumour in that situation, notwithstanding its large size. The accident which had injured the hernia was a fall of a few feet, in which he struck the tumour.
5	F. 40	Servant.	Femoral, 1 year; no truss.	Left.	5 days,	March 9.	Clear serum; a knuckle of small intestine, much congested, but not inflamed.	Opened.	Cured; 10 days.	The sac was found much thickened. No symptom followed the operation, though the bowels did not act for six days after it, and eleven after the period of strangulation. No purgatives were given till five days after the operation.
6	F. 52	Nurse.	Femoral, 8 years; truss	Left.	30 days.	March 29.	A small knuckle of small intestine, much congested.	Opened.	Died; 5 days.	The stricture was very tight. The patient was very nervous and debilitated, with old bronchitis. She died with symptoms of peritonitis. No P.-M. examination.
7	F. 57	Widow.	Umbilical (?) 30 years; bandage worn.	..	..	April 2.	Not examined.	Opened.	Died.	This was an exploratory operation, performed on account of constipation and vomiting persisting several (about nine) days, with irreducible hernia. The neck of the sac was found quite free from stricture. P.-M. examination showed the transverse colon and small intestine (a large portion of the former, and about six inches of the latter) contained in and adherent to the sac. The peritoneal cavity contained sero-purulent fluid.
8	F. 35	Cook.	Femoral, 2 years; truss	Left.	2 days.	April 19.	A largish piece of deeply congested intestine; sac partly adherent; no fluid.	Opened.	Died; 6 days.	The hernia had been a good deal manipulated before her admission. Perforation of the intestine from gangrene followed on the fourth day.
9	M. 66	Butler.	Femoral, 3 years; no truss.	Right.	5 days.	May 5.	A large piece of adherent and thickened omeutum; a smaller piece, more recently protruded, of a healthy appearance; a small knuckle of intestine, not much congested; a large quantity of bloody fluid.	Opened.	Died; 1 day.	The hernia had been a good deal manipulated before admission. Peritonitis set in on the night after the operation, and proved rapidly fatal, without severe symptoms. The kidneys were extensively diseased.
10	F. 57	Married woman,	Femoral, 1 year; no truss.	Right.	8 days.	May 8.	The sac was adherent all round its neck to the intestine. This was a small knuckle which had lost its fulness and shining appearance; was of a grey colour, and perforated by a small hole.	Opened.	Died; 8 days.	The gut was laid open at the operation, and stitched to the wound. There was an old inguinal hernia on the opposite side, not strangulated, and containing only an empty omental sac. P.-M. examination showed peritonitis.
11	F. 29	Cook.	Femoral, 10 months; no truss.	Right.	13 hours.	June 5.	A small knuckle of intestine, and a little clear serum.	Opened.	Cured; 29 days.	
12	F. 32	Widow.	Femoral, recent (observed 3 weeks); no truss.	Left.	36 hours.	June 20.	Much bloody fluid, containing some flakes of lymph; a very small knuckle of intestine, with a good deal of blood on its surface.	Opened.	Cured; 35 days.	Rather violent efforts at reduction appeared to have been made before admission.
13	M. 3 muths	Infant.	Congenital inguinal; no truss.	Left.	About 36 hours.	June 23.	A little serous fluid; a large coil of small intestine, in parts almost black.	Opened.	Died; 1 day.	He had a similar hernia on the other side. This was reduced, by taxis, under chloroform, a few hours before the operation. The principal obstacle to reduction on the other side was the tympanitic condition of the gut, which prevented its return even after the incision. The parts in the neighbourhood were therefore freely incised, and the wound stitched up. The child had been sinking before the operation, and died on the following day apparently from weakness.

Table of Cases of Strangulated Hernia—Continued.

No.	Sex and Age.	Occupation.	Nature of Hernia, recent or old; truss worn or not.	Right or Left Extremity.	Period of Strangulation.	Date of Operation.	Contents of sac and their condition.	Sac opened or not.	Result, and at what period.	Remarks.
14	F. 45	Housemaid.	Femoral, 1 year; no truss.	Left.	1 day.	Sept. 1.	A small piece of thick and red omentum.	Opened.	Cured; 60 days.	Recovery was retarded by a severe attack of sloughing phagedæna of the wound.
15	F. 35	Housekeeper.	Femoral, recent; no truss.	Right.	3 days.	Sept. 7.	Bloody fluid; small intestine (a tolerably large piece), highly inflamed.	Opened.	Cured; 54 days.	The operation was followed by sloughing phagedæna.
16	M. 64	Carpenter.	Femoral, recent; no truss.	Right.	5 days.	Nov. 21.	Grumous fluid, not fæcal; a small piece of omentum, concealing a portion of small intestine, not gangrenous, but perforated by ulceration in the course of the stricture.	Opened.	Died same day.	At the operation, while the gut was being handled, it slipped up into the belly. This was before the operator had made up his mind whether or no to return it. Immediately on this, fluid fæces were found to be running out at the wound, and continued to do so till his death, four hours afterwards. P.-M. examination showed fæces extravasated into the peritoneal cavity, the gut ulcerated in the course of the stricture, and signs of peritonitis, which must have existed before the operation.
17	M.; 7 mnths	Infant.	Congenital inguinal; truss.	Right.	12 hours.	Nov. 30.	Some fluid; a large coil of small intestine, not inflamed; fluid escaped out of the peritoneal cavity after the return of the gut.	Opened.	Died; 5 days.	P.-M. examination showed peritonitis.

Summary of the preceding Table :—Total number of cases, 17, 6 males, 11 females; 9 died.
Inguinal, 4, all males; 1 direct, 3 congenital; 2 of the latter (both infants) died, 1 of exhaustion, 1 of peritonitis.
Femoral, 12, 2 males, 10 females; 6 died, 2 from perforation of the intestine by ulceration before the operation, 1 from the same complication after the operation, 1 of gangrene of the gut, which was laid open at the operation, 2 of peritonitis umbilical; 1 died; an exploratory operation; no strangulation; died of peritonitis existing previous to the operation.

Table of Cases of Amputation of the Thigh, Leg, Arm, and Forearm, at St. George's Hospital, 1855.

No.	Sex and Age.	Occupation.	What limb amputated, circular or flap.	Why amputated.	Right or left Extremity.	Date of operation.	Result, and at what period.	Remarks.
1	M. 16	Labourer.	Leg; circular.	Primary, for compound fracture of leg and excessive laceration of foot.	Left.	Jan. 5	Died; 29 days.	Vide Compound Fractures, No. 1. The operation was followed by phagedæna of the wound. P.-M. examination showed pyæmia, recent fibrin in the pleural cavity, and lobular pneumonia.
2	M. 19	None.	Leg; flap.	Diseases of ankle-joint and tibia.	Left.	Jan. 18	Cured; 55 days.	
3	M. 42	Smith.	Arm; flap.	Caries of the bones of the elbow.	Left.	May 10	Died; 11 days.	He was in bad health at the time of the operation, suffering from old bronchitis, and apparently broken in constitution by intemperance. Symptoms of pyæmia followed the operation. The body was not examined.
4	M. 40	Labourer.	Leg; circular.	Compound fracture of the leg; hospital gangrene.	Left.	June 28	Convalescent; 120 days.	Secondary amputation; vide Compound Fractures, No. 3.
5	M. 39	Farrier.	Thigh; flap.	Compound fracture of the leg; hospital gangrene.	Left.	June 29	Died; 10 days.	Secondary amputation; vide Compound Fractures, No. 9. P.-M. examination showed pyæmia and phlebitis of the femoral vein. The soft parts were so extensively destroyed by the gangrene, that there was not room to make a covering for the bones below the knee.
6	M. 17	Clerk.	Thigh, at the hip-joint; flap.	Osteoid cancer and encephaloid dislocation of the femur, with large cyst.	Left.	July 4	Cured; 28 days.	The operation was got through rapidly, and with very little hæmorrhage; he recovered without a bad symptom. For the description of the parts, vide Surgical Case Book, p. 891. The disease recurred in the lungs, and he died about half a year afterwards.
7	M. 36	Labourer.	Leg; circular.	Elephantiasis of the leg; disease of the tibia.	Right.	Aug. 23	Died; 16 days.	P.-M. examination showed pyæmia, phlebitis of the femoral vein.
8	F. 25	Nurse.	Leg, at the ankle-joint (Syme's amputation).	Caries of the tarsus.	Right.	Aug. 30	Died; 36 days.	The operation was followed by a severe attack of erysipelas, succeeded by pyæmia, and abscess in the cellular tissue of the back. P.-M. examination showed incipient phthisis.
9	F. 37	Servant.	Leg, at the ankle-joint (Syme's amputation).	Caries of the tarsus.	Right.	Sept. 6	Convalescent; 102 days.	A sinus was left open in the stump at the time of her discharge, in which no bone was felt, but which showed no disposition to heal.
10	M. 28	Labourer.	Leg; flap.	Compound dislocation, and fracture of the ankle.	Right	Sept. 21	Died; 27 days.	P.-M. examination showed pyæmia, inflammation of the iliac veins, abscess of the liver, knee-joint, sub-peritoneal cellular tissue, and pleura; secondary deposit in the lung; kidneys and other viscera healthy.
11	M. 24	Gamekeeper	Leg; flap.	Caries of bones of foot and leg.	Left.	Oct. 4	Cured; 76 days.	
12	M. 20	Labourer.	Leg; circular.	Caries of the ankle.	Left	Oct. 4	Cured; 55 days.	There were extensive abscesses, and great swelling, involving the soft parts to too great an extent to allow of amputation at the ankle-joint.
13	M. 41	Labourer.	Arm; circular.	Combined fracture into the elbow, and much laceration from gunshot injury.	Right.	Oct. 20	Died; 29 days.	Primary amputation, vide Compound Fractures, No. 14. P.-M. examination showed pyæmia, abscess of the tarsal joints, and secondary deposits in the lung.
14	M. 54	Bailiff.	Leg; circular.	Caries of the os calcis, astragalus, and bones of the leg, after the last amputation.	—	Oct. 25	Cured; 34 days.	The amputation of part of the foot was performed here last year. The wound had healed soundly, but the disease extended to all the bones of the foot, and to the extremities of those of the leg.
15	M. 34	Stonecutter.	Thigh; circular.	Compound fracture of the leg, followed by phagedæna, necrosis of bone, and abscess in the knee-joint.	Right.	Nov. 1	Cured; 48 days.	Vide Compound Fractures, No. 7. Secondary amputation.
16	M. 34	Clerk.	Thigh; circular.	Compound comminuted fracture of the femur, with laceration of the femoral vessels; gunshot injury.	Left.	Nov. 5	Cured; 62 days.	Primary amputation; vide Compound Fractures, No. 15. There remained a ring of necrosed bone at the end of the stump of the femur, which did not come away for some months after his discharge.

Summary of the preceding Table :—Total number of cases, 16; 7 died.
Of the Thigh, at the hip-joint, 1, recovered; lower down, 3; 1 primary, recovered; 2 secondary; 1 died of pyæmia.
Of the Leg, 8 (above the ankle); 2 primary, both died of pyæmia; 1 secondary, recovered; 5 for disease; 1 died of pyæmia. At the ankle-joint, 2; 1 died of pyæmia.
Of the Arm, 2; 1 primary, 1 for disease; both died of pyæmia.

Table of Cases of Compound Fracture of the Thigh, Leg, Arm, and Forearm at St. George's Hospital, 1855.

No.	Sex and Age.	Occupation and general habits.	Date of admission.	Nature of accident.	Limb.	State of wound and of fracture.	Treatment.	Result and duration.	Remarks.
1	M. 16	Labourer; regular habits.	Jan. 5	The foot was crushed in a thrashing-machine.	Left leg.	The foot was extensively lacerated, the astragalus torn out of its place, and most of the metatarsal bones denuded; the fibula was fractured in two places, near the ankle and at the junction of its upper and middle third. The latter fracture was double.	Primary amputation.	Died; 29 days.	Vide Amputations, No. 1. Pyæmia; secondary pneumonia; pus in the perineal cavity.
2	M. 13	Page; regular habits.	Jan. 17	Fall of 20 feet, a fortnight before admission.	Right forearm	Lacerated wound over olecranon, leading to a comminuted fracture of that bone; injury received a fortnight before admission. The wound is suppurating healthily. Simple fracture of radius below the junction of middle and lower third.	Rectangular splints.	Cured; 133 days.	Recovered with loss of motion of the elbow-joint and partial anchylosis.
3	M. 40	Labourer; intemperate.	Feb. 23	Fall on the pavement during a severe frost.	Left leg.	An angular wound, about two inches in length. A good deal of effused blood in the neighbourhood. Oblique fracture of the tibia below the middle, the end of the upper fragment projecting about one inch from the wound. Fibula fractured at about the same level.	A piece of the tibia, about three-fourths of an inch in length, sawed off. Assalini's box. Extension could not be borne. Amputation rendered necessary by extensive suppuration and displacement of the fractures.	Convalescent; 245 days.	Vide Amputations, No. 4.
4	M. 27	Stableman; regular habits.	Mar. 5	Fall from a horse, which kicked him afterwards.	Left leg.	Small wound, not much contused, over the middle of the tibia, from which the upper fragment was protruding about two inches. The fracture of the tibia was extremely oblique, running downwards and inwards for at least three inches. Fibula fractured about the middle.	Fracture reduced, Assalini's box. The injured parts sloughed. Wound attacked with hospital gangrene. Opium, wine, sulphate of copper lotion, quinine.	Died; 36 days.	Secondary deposits; no P.-M. examination.
5	M. 3	Child.	April 17	A cart wheel fell across his legs.	Left leg.	A wound, not much contused, on the middle of the front of the leg, leading to a transverse fracture of both bones. No protrusion.	Splints. Good diet.	Cured; 33 days.	Severe contusion of the opposite leg.
6	F. 60	Charwoman; intemperate.	May 10	Run over by a cab.	Left arm.	Small wound on the inside of the elbow, leading to an oblique fracture through the inner condyle of the humerus.	Splints, which were obliged to be omitted very shortly.	Cured; 41 days.	Did not lose the motion of the joint.
7	M. 34	Stonecutter; intemperate.	May 20	Thrown down in a scuffle.	Right leg.	Wound, about two inches long, much contused, about 3 inches above the inner ankle, exposing a very irregular fracture of the tibia, much comminuted, and running down towards, but apparently not into, the ankle. The fibula is also comminuted.	Assalini's box. Tonics and stimulants. Phagodæna set in, followed by abscess in the knee-joint. This was opened, but the symptoms required secondary amputation of the thigh.	Cured; 213 days.	Vide Amputations, No. 15.
8	M. 10	Healthy boy.	May 20	A heavy railway truck passed over his arm.	Right arm.	Large lacerated wound, almost 4 inches in length, on the outer side of the elbow, opening freely into the joint, and exposing the head of the radius. The inner condyle of the humerus was fractured, and the end of the ulna comminuted.	Angular splint. Many-tailed bandage. Good diet. A small piece of the head of the radius extracted.	Cured; 164 days.	Recovered, with anchylosis of the joint.
9	M. 39	Farrier; temperate.	June 2	A horse he was riding fell with him.	Left leg.	A very small wound, about 4 inches from the ankle, caused by the sharp end of the upper fragment of the tibia, which, however, had been reduced before admission. Fracture of tibia irregular, and much comminuted.	Assalini's box. Chlorate of potash, bark, &c., in a severe attack of hospital gangrene. Then secondary amputation of thigh.	Died; 36 days.	Vide Amputations, No. 5.
10	F. 53	Married; temperate.	June 23	Fell down stairs.	Left arm.	An extensive fracture of the lower part of the humerus, running just above the condyles, separating them from the shaft of the bone, and communicating with a small wound near the outer condyle.	Angular splint. Diaphoretics, cooling lotions, and low diet for the scalp wound.	Recovered; 32 days.	Had also an extensive scalp-wound, not exposing the bone.
11	F. 52	Married; lives poorly.	Sept. 1	Fell into a ditch.	Right leg.	Large angular wound. Transverse fracture of both bones; about an inch of the tibia protruded.	Wound enlarged to replace the bones. Assalini's box.	Cured; 192 days.	Necrosis of a portion of the tibia supervened.
12	M. 28	Labourer; temperate.	Sept. 13	A fall of 30 feet.	Right leg.	Great laceration at the inner side of the ankle, the articular end of the tibia protruding for about 3 inches into a small portion of the fibula attached. Both malleoli remained attached to the joint.	Primary amputation.	Died; 27 days.	Vide Amputations, No. 10.
13	M. 41	Labourer; probably intemperate.	Oct. 20	Gunshot wound; a fowling-piece discharged close to his arm.	Right arm.	Great laceration of the parts in front of the elbow, and fractures of the humerus extending into that joint.	Primary amputation.	Died; 27 days.	Vide Amputations, No. 13.
14	M. 34	Clerk; temperate.	Nov. 5	Gunshot wound. The ramrod of a small cannon passed through his thigh, from a short distance.	Left thigh.	A wound passing through the thigh obliquely backwards and upwards. The lower end of the femur smashed into numerous small fragments. Large hole in the popliteal vein, and smaller rent in the artery.	Primary amputation.	O. P.; 62 days.	Vide Amputations, No. 16.

Total number of cases, 14; 5 died.

Of the Thigh, 1 recovered, primary amputation.

Of the Leg, 8; 4 died; 2 primary amputations (both died); 1 secondary amputation of leg, recovered; 2 secondary amputations of thigh; 1 died, 1 recovered. The other death was from pyæmia

Of the Arm, 4; 1 primary amputation, died.

Of the Forearm, 1; recovered.

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Medical Times & Gazette.

SATURDAY, JULY 18.

THE MEDICAL EVIDENCE IN THE CASE OF MISS SMITH.

The trial of Miss Madeline Smith for murder has equalled in its length of days and in its interest the famous Palmer cause. In all other particulars, however, the present case has been the antipode of the past. The presiding Judge let every opinion he uttered drop the gentle dew of mercy. The mob listened without howling. In the forum the Hercules of the advocates was for the prisoner. The press was moderate in its ante-decisions. The medical witnesses appeared less strongly in the character of advocates. Moderation tempered justice.

The Medical evidence has been simple in its nature. The man L'Angelier died from an obvious cause, arsenical poison. The fact was all that was required to be substantiated, and the fact was easily shown. Still in a forensic sense the trial has some points of interest. The deceased man was proved to have had a dose of arsenic incredibly large. Orfila was dragged into a brief argument with Christison on the question of the taste of arsenic; the question was of moment, but of less moment than one which escaped attention altogether, viz. the taste of soot. Let it be assumed that a man would receive and swallow from the hand of another person some 200 or 300 grains of simple arsenic, and not taste it; but what shall be said of arsenic mixed with soot? If the packets of arsenic bought by Miss Smith were given to L'Angelier he must, once at least, have taken from her a soot and arsenic potion so atrociously noxious that we believe no mortal man could be induced to do more than taste it. The thing is absurd. L'Angelier took no soot and arsenic in the murder draught. If he did, nothing applies to his case but the rustic axiom, "Served him right." But L'Angelier was just the man not to be caught in such an exposed trap.

One word as to the purchase and sale of the poison. The practice of Physic must surely be at a low ebb in the north. Do the reporters plot a joke at the expense of the Profession, or is it true that Glasgow Physicians sell cigars, and that women dispense poisons and physic to all comers? The history of the trial gives both these occurrences as realities.

The question whether indigo or soot, mixed with arsenic, could be detected in the stomach, was replied to by Dr. Penny on experimental grounds. He could identify arsenic as mixed with soot, but not as mixed with indigo. The evidence of Dr. Penny, while it called forth the admiration of the Judge, and deserves, unquestionably, the highest commendation as a piece of sound chemical reasoning and argument, might have been made much more positive, had additional eyesight been employed in preparing it; *i.e.* had the microscope been used. It was, and is still, an open question, in what vehicle so much arsenic could have been swallowed. To have ascertained this simple truth would have been to have traced the case back a definite step. This discovery the microscope would have revealed; and, as it could, so it ought to have revealed it.

The question whether water in which arsenic is suspended could be applied to the hands and face without risk, was brought up. Dr. Christison was appealed to, and was unable to answer on knowledge. In this position, he answered on speculation, giving obviously a prosecution opinion. Fortunately for the defence, Professor Laurie, on direct knowledge based on experimental evidence, proved that arsenic-water could be so used with impunity. Dr. Christison has a great reputation, and we should be the last to undervalue it; but as his reputation has arisen from his statements of facts, we should certainly like to see it continue on the same sound basis, otherwise it will not continue at all. Any man can give an opinion, and the opinion of such a man as Dr. Christison is often taken for gospel. Hence such men, in a case where life is at stake, should be cautious in rigidly adhering to knowledge argument, *i.e.* to matter of fact and experiment.

The charges against the prisoner were merely circumstantial; were logically weak, and were terrifically forced. The defence was, that there was no connected evidence against the prisoner; while many facts were adduced to show that the suicidal mania was a part of the mental life of the deceased man, L'Angelier. The evidence proved that he was a worthless deceiver, that he several times tried to commit suicide, that he protested his belief in the right of suicide, that he openly proclaimed his intention of becoming a suicide, that he dabbled with poisons, with arsenic among others, and that his death from poison might have been expected. We do not say that L'Angelier therefore and of necessity died a suicide; but we cannot conceal the surprise and even horror with which we read, in this age of humanity and progress, of the Lord Advocate for Scotland, a gentleman and a man of honour, using all his sophistical eloquence, in the face of such evidence, to lead a jury into the belief that there was no suspicion of L'Angelier having committed suicide, implying as a corollary that the prisoner must therefore be handed over to the tender mercies of the executioner. After such argument, what is, or rather what is not, murder? In the most trivial cause, in the very presence of guilt, would not such persuasion, based on the same data, be equally sophistical and contrary to truth, and indefensible? How much the more so then on this solemn occasion? The only explanation of such conduct is, that man at the best is so remarkable an animal, that in hot pursuit after success he not unfrequently loses his consciousness and his humanity.

The presiding Judge, caught, probably, by the advocate's sophistry, fell into a similar train of reasoning, in the course of which he showed a very general ignorance of the conduct and motives of suicides. The fact that L'Angelier sent for a doctor, or rather allowed one to be sent for, and that he did not proclaim himself a suicide, argued, as the Judge thought, that the man was not a suicide. Our psychologists will give us another reading. They will tell us that such proceeding is a marked sign of the mania of suicide; that what most suicides instinctively do when they have brought on symptoms without death is to send for a doctor, and either to say nothing about, or even to deny, their own deeds. This is a natural sequence of suicide. The act, however long premeditated, is sudden and determined at last. Let it succeed, and th suicide can do no more; let it succeed in part only,

and when the agony of body approaches, the mania for death disappears. The desire still to live increases with each pang that proclaims remaining life. Then the horror of the act, and the shame, develope as the impulse for destruction disappears. So, longing for life and shrinking from exposure, what more instinctive than that the suicide should send for relief, and suppress or deny his crime? We are not writing theory here; for if we were we should be speaking as rashly as did those we would criticise. We speak from observation and fact in cases of suicide, and the deposition of Dr. Paterson of Leith fully bears out all that we have said. He deposed as follows:—

"I am a physician in Leith. I have had occasion to see several cases of suicide by poisoning. The individuals, who were patients, were in different positions in life, mostly young women, and connected with the mills and colour works in the neighbourhood. I have reason to know that, in many of these cases, they obtained the arsenic about the works; in others it was purchased. I was called in to attend the patients professionally. I prescribed for them while they were suffering from the effects of the poison. They all died, with one exception. Of course I used all the remedies I could think of. There were seven cases altogether. In six of these, where death ensued, the patients submitted to medical treatment without any attempt to prevent it. None of them admitted that they had taken poison. I asked them all what they had been eating or drinking, and what had been the cause of their illness. I asked them, also, whether they had taken arsenic or any poison; but they all denied having done so. They submitted to medical treatment like any other patient. In the case of the seventh, which was a recovery, she did not at first admit that she took poison, but she admitted it after she had almost recovered from the secondary effects. She was then aware she was recovering. In the previous stages of her illness she was morose and sullen, and would not speak. Arsenic was used to a very large extent in these mills, particularly at that time. These cases occurred several years ago. The people about these works had, at that time, great facilities for taking away arsenic.

"By the Lord Advocate: These cases occurred within a series of eighteen years. The symptoms in each were nearly similar. They were the symptoms usually characteristic of poison. The patients were suddenly seized with sickness and vomiting. The vomiting matter was generally coloured, according to what had been taken. In some instances the vomiting ceased before death. They were all suicidal cases. There could not be the least doubt of that.—Did any of these patients ask for a medical man to see them? I cannot say; I do not know that they did.—Have you any means of ascertaining the interval which had elapsed between the time of their taking arsenic and the illness coming on? I have no precise means of ascertaining that. The time from the seizure to death did not exceed 16 hours. In one case the patient died within 12 hours."

Another strong point is, that the amount of arsenic taken by the deceased is in favour of suicide. From the proportion found in his stomach after death, it is probable that the real quantity swallowed would have required for its solution nearly two quarts of any ordinary drink. How could L'Angelier have been induced to drink any such quantity? or how could it have been given in the solid form without his knowledge?

Any way to connect the prisoner and the crime, after the evidence that was adduced, was impossible. It is true she bought poison,—arsenic twice,—and that she tried to buy prussic acid. Ah! well. What did she want with them, say you, except to poison L'Angelier? Let us see. She says that she used the arsenic as a cosmetic, but the prussic acid she does not account for. Let these facts pass. Let the scoundrel L'Angelier also move off the scene for a moment. Now what is the picture in the weeks preceding L'Angelier's death? A ruined, hopeless girl, wrung with sorrow, mad with rage at her own folly and sin, dying with fear at her father's wrath, educated by her seducer to the idea that suicide is morally right, thinking death better than exposure, repeating, in essence, *Hamlet's* question,—

> "Whether 'tis nobler in the mind to suffer
> The stings and arrows of outrageous fortune,
> Or to take arms against a sea of troubles,
> And, by opposing, end them?"

This is the picture. And now let us ask whether, in such an hour of despair or temporary madness, the poisons might not have been intended for a much more deeply-injured and broken-hearted victim than Emile D'Angelier?

These are our forensic readings of this important trial; and while all must look with sorrow as with shame at some of the deeds of the unhappy prisoner, all should rejoice at the decision of the jury, and join heartily with a contemporary in a word to the unfortunate prisoner, reverently copied, "Neither do we condemn thee; go and sin no more."

THE WEEK.

On Saturday last the President and Fellows of the Royal College of Physicians held their annual soirée at the College in Pall-mall, and a numerous and influential party assembled upon the occasion. The Fellows and Members of the College were present in great force, and the Fellows of the College of Surgeons were almost equal in numbers to their Medical *confrères*. Besides the members of the Medical Profession, many of the most distinguished men of the day honoured the occasion with their presence, among whom were the Lord Chief Justice of the Court of Queen's Bench, Lord Wensleydale, Vice-Chancellor Sir Richard Kindersley, Vice-Chancellor Sir John Stuart, Sir Henry Ellis, Professors Baden Powell, Wheatstone, Babbage, Sylvester, Solly, General Sir Frederick Smith, M.P., Mr. Locke, M.P., Mr. Gladstone, M.P., Mr. Tite, M.P., Mr. Briscoe, M.P., Mr. Russell, M.P., Mr. Hope, M.P., the Rev. Dr. Livingstone, the Rev. Dr. Major, Mr. Edwin Landseer, R.A., Mr. Pickersgill, R.A., Mr. Grove, Q.C., and many others. The objects of interest upon the walls and upon the tables of the great Hall were not quite so numerous as we have seen on other similar occasions, but, nevertheless, there was a goodly array of photographic drawings and of microscopes, together with philosophic instruments, and ancient volumes of classical and Medical literature of which the College of Physicians' Library contains a very choice collection. The evening was most agreeably spent, and the chimes of midnight were sounding in the neighbouring church-towers before the whole of the assembly had dispersed. Such *réunions* of the Profession with one another, with the members of kindred liberal Professions, and with the representatives of the country, cannot be too warmly commended, as tending to cultivate a kindly feeling among the members of our own body, and bringing us into connexion on favourable terms with the different branches of the State, to whom at present we are, as a community, too little known.

Dr. Conway Evans's Weekly Return of the Rise and Decline of Disease in London is gradually increasing in interest. The following remarks on ozone in last week's return are of great importance:—"During the whole week the atmosphere appears to have been charged with ozone to an unusual extent. A large amount was observed at Hackney on every day of the week, but especially on Saturday, while only a small amount could be detected at Fulham on any day except Saturday. The wind was generally in the north-east. This interesting fact affords some confirmation of a circumstance pointed out in a previous number, viz., that at these stations ozone appears to exist in greatest quantity when the wind arrives at the station before it traverses London. Thus the north-east wind reaching Hackney from the country is found

to be highly charged with ozone; but on arriving at Fulham, after having crossed London, it appears to have lost almost all traces of this substance. And precisely the converse of this occurred on Saturday, when the wind blew from the south-west. Should this circumstance receive further confirmation from future observations, it shows in a marked manner how intimately dependent are the suburban districts upon the purification of the atmosphere of the central parts of the Metropolis by the ozone brought up by the fresh air from the country." The results of private practice will for the future be recorded in the Return; and those private Practitioners who are willing to furnish the desired information are requested to forward their communications weekly to the "Board of Health, Whitehall." Copies of the Return will be regularly forwarded to all public institutions from which information is obtained; also to such public officers and such private Practitioners as are willing to assist the objects of the compilation. The plan of this Return is so excellent, and there seems to be so fair a promise of its being well carried out, that we trust the Profession will co-operate cordially with Dr. Evans.

In our leading article last week the following information respecting the Army Medical Department of Sardinia was accidentally omitted:—

In March, 1856, some important changes were made in the Medical Department of the Sardinian Army, of which the following is a brief summary:—The pay and relative rank of the Medical officers have been modified, and are now as follows:—

		No. employed	Pay.	Relative Military Rank.
			£	
Superior Council of Health.	President	1	250	Colonel.
	Medical Inspectors	2	180	Lieut.-Colonel.
	Apothecary	1	180	Lieut.-Colonel.
	Secretary	1	96	Captain.
Divisional Medical Officers, 1st class		3	144	Major.
Divisional Medical Officers, 2nd class		4	120	Major.
Regimental Medical Officers, 1st class		20	108	Captain.
Regimental Medical Officers, 2nd class		26	96	Captain.
Battalion Medical Officers, 1st class		40	68	Lieutenant.
Battalion Medical Officers, 2nd class		40	60	Lieutenant.
Assistant Medical Officers		20	56	Sub-Lieutenant.
Apothecaries, 1st class		3	72	Captain.
Apothecaries, 2nd class		5	48	Lieutenant.
Apothecaries, 3rd class		17	40	Sub-Lieutenant.

The appointment of Assistant Medical Officer is given to candidates after their Professional fitness has been ascertained by examination. Promotion from second to first class in all ranks, and also from Assistant to Battalion Medical Officer is by seniority; of the Regimental and Divisional Medical Officer two-thirds are promoted by seniority, and one-third by selection, after an examination; the Inspectors are appointed by selection from the Divisional Medical Officers of the first and second class without examination and without reference to seniority. By the ordinance of 1850, Divisional and Regimental Medical Officers acquired a right to pension after thirty years' service, Battalion Medical Officers after twenty-five, and the other grades after twenty; that of March 17, 1856, confers on all a right to the pension of the grade immediately superior after twenty years' service, provided they have served two years in the rank from which they retire. This is certainly a great boon. It is not, however, extended to the Apothecaries.

On Monday last a deputation of St. Andrew's Graduates, consisting of Drs. Tripe, Dobell, Paul, Newnham, Helsham (of Chichester), and B. W. Richardson, had an interview with Mr. Headlam in reference to the fifth clause of his Bill. The deputation explained that the Graduates of St. Andrew's had a strong feeling that their University would not have an independent representative on the council of registration should the Bill become law. The speakers described the first-class character of the St. Andrew's examination for M.D., the great numerical strength of the Graduates, and the unfairness of giving to certain bodies a separate representative, and only a third of a representative to their University. Mr. Headlam in reply said that his Bill was withdrawn for this session, but that he would be happy to see the deputation again at the end of the year, and would give his best consideration to any plan they should propose. The Bill was withdrawn on Wednesday, Mr. Headlam moving that the order for the second reading be discharged. Thus ends the history of Medical Reform for this session, precisely as we had anticipated. A Royal Commission is now the only course likely to lead to a settlement of the long-vexed question.

The idea that acute rheumatic fever arose from the presence of lactic acid in superabundance in the system, and that the symptoms could be accounted for from this cause, was first propounded by Dr. Prout. Since, Dr. Todd, Dr. Fuller, Mr. Spencer Wells, and other writers have supported this view. Dr. Richardson has just made some very important experiments to try whether it admitted of any direct demonstration. On July 8th, he injected into the peritoneum of a healthy cat 7 drachms of a solution of lactic acid, with 2 ounces of distilled water. The operation was performed without accident. The opening in the peritoneum was made valvular, only sufficiently large to introduce a small injecting tube. Two hours after the operation the action of the heart became irregular. The animal was left for the night about six hours after the operation, and in the morning was found dead. The inspection showed no peritoneal mischief, but the most marked endocarditis of the left cavities of the heart. The mitral, thickened and inflamed, was coated on its free borders with firm fibrinous deposit. The whole endocardial surface of the ventricle was intensely vascular. On Monday last Dr. Richardson repeated this experiment on a healthy dog. On the 14th the dog was living, and was seen and examined by Dr. Snow, Dr. Rogers, Mr. Spencer Wells, Dr. Webb, Dr. G. Hewitt, Dr. Snow Beck, and others, and the experiment of injection was repeated on a second dog. The first dog died on Wednesday, and the inspection revealed the most striking pathological signs of endocarditis. The tricuspid valve was inflamed and swollen to twice its ordinary size. The aortic valve, swollen and inflamed, was coated on its free border with fibrinous beads. The endocardial surface was generally red from vascularity. The pericardium was dry and injected. As before, the peritoneum escaped injury. The joints were not affected, but there was distinct sclerotitis in the left eye. The other dog remains under observation. These experiments demonstrate that endocarditis may be physiologically produced by lactic acid. Dr. Richardson has a further list of experiment son hand, in which he carries on the inquiry as to the influence of the acetic, the citric, and the uric acids, when introduced into the system in a similar manner. A history of these experiments will be kept before our readers. We have witnessed several of them at the Grosvenor-place School, and their results. Injection by the peritoneum appears to be a very simple and almost painless mode of introducing soluble substances into the blood, and we anticipate very important results from the investigation.

THE Queen has been pleased to appoint Joseph Collings, Esq., M.D., to be a member of the Council of Government of the island of Malta.

REVIEWS.

Des Anévrismes, et de leur Traitement. Par Paul Broca. *On Aneurisms, and their Treatment.* By M. Paul Broca, Professor Agrégé of the Faculty of Medicine of Paris. 8vo, with Woodcuts. Pp. 940. Paris. 1856.

The work of M. Broca is composed of two parts. The first, of about 200 pages, is devoted to the *Pathology of Aneurisms;* the second, of more than 700 pages, under the title of *Treatment of Aneurisms*, examines in succession the nineteen therapeutic methods devised up to the present time, together with the numberless proceedings appertaining to them. The first part may be regarded as an introduction to the second. In it the author exposes the principles of pathological physiology that form the basis of comparison and appreciation of the various methods of treatment.

We are obliged, by the limited space at our command, to pass at once to the second part of M. Broca's work, in which he describes, compares, and discusses the numerous and the almost innumerable methods of treatment that have been devised up to the present time. Without counting amputation, which is only a desperate resource, the methods amount to no less than nineteen. Many of these methods are now abandoned; some of them have been so rarely resorted to that we are left in ignorance of the degree of usefulness they possess. As regards those that are still in the state, as it were, of incubation, the author has scrupulously collected all the cases known that they may serve as marks to guide Surgeons in their investigations.

Passing rapidly over several methods, we come to chapter vii., in which M. Broca describes the *Endermic Method*, by means of which he was successful in obtaining a prompt and lasting cure in a case of aneurism of the temporal artery. M. Thierry, we know, imagined that he could obliterate varices by applying on the skin previously denuded by a blister, perchloride of iron. This application excites an inflammation that is propagated to the enlarged veins, in which it often determines the formation of clots; but this obliteration is only transient, and the veins become permeable again after some days. M. Broca was aware of this fact; but furthermore knowing that arterial obliterations were more permanent than those of veins, he thought that the endermic method, inefficacious as regards varices, might furnish a better result in the treatment of those very superficial aneurisms of the scalp and frontal region. He was not mistaken in his expectation, for by one application of the perchloride on the denuded dermis he rendered definitively solid a cirsoid aneurism of the scalp, that had already existed four months, and was making alarming progress. On the fifth day the tumour was obliterated, and the patient, who was seen seven months after, continued perfectly cured. M. Broca adds, that he has cured in this manner several cases of those congenital nævi known vulgarly under the name of *wine spots*, and which, it is well known, are refractory to all modes of treatment. The proceeding consists in removing the epiderm by a blister, and then touching the denuded derm with a pencil of charpie, wetted with perchloride of iron, at 30° of the areometer of Beaume.

From the 12th chapter onwards, the author gives himself up to the consideration of the more practical methods, that are of more general application. Here he aims more especially at determining their mode of action, taking care not to make out a theory except on positive facts, and for this, preferring cases accompanied by their autopsies, whether made immediately or after a long interval of time. He first considers refrigeration, a method that its inutility would have caused to be rejected from practice, had it not been generally supposed to be innocuous. He proves this opinion to be erroneous, and quotes instances in which refrigeration gave rise to fatal accidents. Nay more, he shows that in the cases where this method has been successful, it has been almost always conjoined with some other more efficacious method, such as direct compression, or the method of Valsalva. He shows, in fine, that up to the present time, refrigeration, when employed alone, has never determined anything but the deposition of passive clots in aneurisms, and he comes to the conclusion that it is inopportune to associate it with other methods, which, like indirect compression, have a tendency to produce fibrinous coagulation. Refrigerants, according to his opinion, ought therefore to be employed only as a palliatives in cases of inoperable aneurisms; and in such cases, it may be associated with Valsalva's treatment. It may also be made use of in external aneurisms, as an antiphlogistic, when the tumour presents alarming signs of inflammation. These are only cases in which it should be employed.

There is a long chapter devoted to direct compression, in which the author endeavours to demonstrate that this method tends to excite inflammation in large aneurisms; an inflammation dangerous always, that in some cases has determined a cure, but which more frequently induces fatal accidents. M. Broca is therefore of opinion that direct compression should be rejected whenever the aneurism is large and deep-seated. But when the tumour is small, recently formed, superficial, and adjacent to a resisting surface, against which it may be compressed, direct compression on the contrary furnishes the most satisfactory results; it obliterates aneurisms by a peculiar process, which the author carefully describes, but which would take up too much of our space to quote. It is, however, worthy of remark, that after cure the artery very often remains permeable. He is also of opinion that direct compression deserves the preference before all other methods, in the treatment of traumatic aneurisms at the bend of the arm, particularly when the affection is recent. Arterio-venous aneurisms consecutive to venesection are almost always cured by this method when they are not of long standing. In such cases, the cure proceeds most frequently thus: the aneurism first ceases to communicate with the vein, becoming a simple arterial aneurism, and in due time, it becomes in turn obliterated.

The two chapters devoted to galvano-puncture and injections of perchloride of iron are entirely original, and these two methods for the first time are here studied together and described in all their details. The author has confined himself to collecting all the documents, historical, clinical and experimental that exist on the subject; he has repeated the experiments of his predecessors, and adding to them some of his own, he has been enabled to rectify some errors by which practitioners are still led astray. Thus, in comparing the results of galvano-puncture on the living blood contained in its vessels, with the phenomena obtained in laboratories on blood extracted from the vein, he found a considerable difference, and proved that the proceedings calculated to obtain the firmest clots in acting on blood dead and deprived of fibrin, lose at once all their superiority, when they are applied to living blood. On dead blood, the action of electricity is limited to decomposing the neutral salts of the serum and to coagulating the albumen around the positive needle; no real coagulation is produced at the negative needle, and hence it has been inferred that the best proceeding consisted in introducing into the aneurismal sac the positive pole only, and leaving the negative pole on the outside of the sac. This method is termed the *mono-galvano-puncture*, devised by Mr. Hamilton, and adopted by MM. Strambio, Bossé, Baumgarten and Wertheimher. But M. Broca has proved this proceeding to be bad, for the living blood is coagulated by galvanism, both the fibrin and the albumen; he has shown that the coagulation is effected just as well around the negative as around the positive needle, and consequently that there is an advantage in introducing both needles into the sac. The most important results of M. Broca's researches are those that relate to the choice of the electric apparatus, and to the means calculated to prevent the formation of eschars around the needles. Up to the present time, it has been admitted that those eschars are produced by the heat, and in consequence the preference was given to piles of feeble *intensity*, and strong *tension*, because the heat disengaged is proportionate to the intensity, and not to the tension of the pile; and the employment of fine needles was avoided because they become more highly and readily heated. Convinced by the study of the laws of electric heat that galvano-puncture could not in any case disengage any appreciable degree of heat, M. Broca ascertained by direct experiment that the galvanic eschars are caused by a chemical and not by a calorific action, and he was thus led to devise the means of making the electricity penetrate through several very fine needles, and to employ piles of average tension and average intensity. Experience has satisfied him that by acting in this manner the maximum of coagulation is obtained without even causing eschars.

M. Broca's experiments with perchloride of iron have furnished some extremely interesting results. He ascertained, amongst other things, that as regards the solutions comprised between 49° and 15°, by the areometer of Baume, the quantity of the salt necessary to coagulate a centilitre of blood is so much less in proportion as the degree of concentration of the solution is less. Thus twenty drops of perchloride of iron at 15°, containing 97 milligrammes of anhydrous perchloride will give the *same clot*, as will fourteen drops at 30°, containing 135 milligrammes of salt. Now the irritant action of the injected liquid is proportionate to the quantity of perchloride it contains, and it is therefore advantageous to make use of solutions of low strength, provided the strength be not reduced below 15°, and this for the reason, that solutions of less strength, *no matter in what quantity they may be employed*, always determine the formation of soft clots. On the other hand, when the strength of the solution is above 15°, and ranges to the highest degree of concentration, the consistence of the clots remains always the same, provided the number of drops employed be sufficient. By a series of these experiments made both on dead and living blood, M. Broca has succeeded in imparting great precision to the mode of operation both with galvano-puncture and coagulating injections.

The clinical study of these two methods has been established on the analysis of upwards of 60 cases, 21 of which belong to the method of coagulating injections. With the constant aim of fixing the mode of action of the therapeutic means, the author proves that these two methods may induce the obliteration of aneurisms, either by immediate coagulation or by a consecutive coagulation, which he attributes to inflammation of the sac. But inflammatory clots, as well as galvanic or chemical clots, contain all the elements of the blood, are completely inorganizable, and participate in all the unfavourable properties of passive clots; and hence the abscesses, local gangrenes, and consecutive hæmorrhages, that have been observed to follow the applications of these two methods, accidents the more frequent and dangerous in proportion to the size of the mass of the clot and the volume of the aneurism. Judging from the results hitherto obtained, the author is inclined to think that these two methods may, without risk, be applied to small arterial and arterio-venous aneurisms. In cases of aneurisms of larger size, he wholly rejects coagulating injections, but he thinks that in some cases of aneurism of the subclavian artery, before resorting to Brasdor's method, the Surgeon would be justified in making trial of the application of galvano-puncture.

We must pass over entirely a valuable chapter on the Ligature, and proceed to the consideration of indirect compression. The author here exhausts the study of the therapeutics of his subject. This is the longest chapter in the whole work, and, indeed, constitutes the most extensive, complete, and didactic monograph that has as yet been published on this important question. Here 215 cases (mostly extracted from the English and Irish journals, and reproduced in the tabular form at the end of the volume), besides several others related in the text, 5 of which belong to the author, constitute the mass of materials on which M. Broca relies for enabling him to appreciate the curative value of the method, to describe the accidents appertaining to it, and to trace out its precepts. A long historical paragraph, abounding in original researches, and novel documents, testifies the importance the author attaches to the method by compression. Without undervaluing the eminent services conferred on humanity by the Irish Surgeons, and especially by Dr. Bellingham, who have enriched and regenerated this valuable method, M. Broca shows that all the principles on which it is based had originated in Italy, in England, in Ireland itself, and above all, in France, long before 1842; that it had been applied at least 52 times before that year, and cured at least 25 cases of popliteal aneurism.

In the succeeding paragraph, he endeavours to ascertain the mode of action of indirect compression, and, in conformity with the doctrine professed by Dr. Bellingham, he shows, on the authority of 19 autopsies, performed during treatment or after cure, that indirect compression acts on circumscribed aneurisms by causing the deposition of active clots, and that it may determine the deposition of fibrinous masses, even in diffuse aneurisms.

In a fifth paragraph, which is exclusively practical, he considers indirect compression in its clinical aspect, the phenomena it induces, its indications and counter-indications, the causes of its failure, and the precautions calculated to insure its success. In the final paragraph, we find the statistics of 163 cases of indirect compression, collected in the interval from 1842 to 1854, and upon this collection, the largest yet made, we shall dwell for a moment.

In 104 cases, cure definitive and complete was obtained by compression alone. In 3 cases the tumour was obliterated completely, but the patients died, 2 of them from gangrene of the limb, 1 from softening and suppuration of a diffuse aneurism, filled with passive clots. In 1 case the artery gave way immediately above the obliteration the twenty-first day, and it was necessary to amputate to save the patient's life. In 2 cases, death took place before the end of the treatment—1 from erysipelas, the other from rupture of an aneurism of the aorta; and in both these cases the autopsies showed that the sacs were almost entirely obliterated by active clots. In 2 cases, the aneurisms, although almost completely solidified, and reduced to a very small size, still present slight pulsations, but they remained definitively stationary, and were no longer a source of any inconvenience to the patients. In 4 cases, the cure was only temporary, the disease returning at different periods between the third and fourteenth month. These 4, however, were treated successfully afterwards, either by compression or by ligature. On the whole, in all the cases, compression acted efficaciously, as was shown by its result in determining the deposition of clots that obliterated the aneurism more or less completely.

In the remaining 47 cases, compression was abandoned as *inefficacious* and *intolerable*. From an analysis of 12 cases, in which compression was declared to be *intolerable*, it has been proved, that most frequently either the apparatus employed was defective, or there was a want of perseverance or confidence on the part of the Surgeon, or of the patient. Those cases in which compression was promptly abandoned (in one case after two hours, in another after five minutes) prove nothing against the power of compression. We have, then, 35 cases set down as failures; but of these M. Broca thinks himself entitled to eliminate a certain number of cases. In some, the aneurism being complicated with profound lesions, were as incurable by compression as by ligature, and could not have been cured except by amputation; in others, the aneurism being situated in the groin, or in the axilla, they could not be treated by indirect compression, which is not applicable in such cases; in others, the Surgeon, in consequence of not being able to procure a proper tourniquet, was under the necessity of renouncing an illusory compression, that could not even check the pulsations of the aneurism; lastly, in others, there was an anomalous arterial distribution, and the pad was applied on an artery that did not communicate with the aneurism.

After thus eliminating all the cases where no method could be successful, and all those in which compression was contra-indicated, M. Broca makes a further subtraction of those in which it was applied in contravention of the rules of art, and there remain no more than 11 valid cases in which compression, properly applied, in proper cases, and on patients both docile and persevering, really proved *inefficacious*. But what is still more encouraging is, that previous compression, even in cases where it seems to fail entirely, greatly diminishes the danger of a consecutive ligature. Thus, out of 26 cases treated by ligature, after the employment of compression for an average duration of ten or twelve days, only 3 proved fatal, 1 of the patients died from purulent infection, and in the 2 others the aneurism communicated with the knee-joint, and 1 of them had besides an aneurism of the aorta. Gangrene did not occur in any of the 26 cases, and in 1 only did a consecutive hæmorrhage take place, which was promptly arrested. This is an answer to the argument, that previous compression produces an alteration of the arterial tunics that favours hæmorrhage.

On the other hand, the 12 cases in which compression was declared to be *intolerable*, and ligature was resorted to in consequence, after a trial of the former of an average duration of three days only, furnished no less than 3 deaths, which about represents the ordinary proportion of the mortality from ligature. Hence, the great advantage for a patient who subsequently undergoes the ligature, to have made previous trial of a well-directed methodical compression, continued, even without immediate results, for one or two weeks. In such a case it is generally said, that compression has failed; but this

cannot be so, as it has for result to reduce the mortality of the ligature subsequently employed one-third. A short parallel between the ligature and compression, entirely to the advantage of the latter, terminates the long chapter on indirect compression; and now the author, having exhausted the list of methods, devotes the twentieth and last chapter of his book to the consideration of the indications of treatment in particular cases. This chapter, exclusively destined for the practical Surgeon, is in reality nothing more than the clinical application of the general principles developed throughout the work. The author admitting beforehand, that no method is applicable in all cases, passes successively in review the special indications founded on the seat of the aneurism, its nature, its freedom from complication, etc. He first considers simple circumscribed aneurisms in the different situations they may occupy, specifying those that ought to be treated by compression, those that require the ligature, those that may be cured by galvano-puncture, and, lastly, those that are amenable only to the methods of Brasdor or of Valsalva. He next treats of diffuse aneurisms, aneurisms with hæmorrhage, and aneurisms complicated with inflammation, gangrene, or lesions of the bones and articulations; and here he discusses the question of amputation. Lastly, after bestowing a few words on multiple aneurisms, he passes on to arterio-venous aneurisms, which he studies after the same manner. He thus combines, in a methodical and well-considered plan, all the precepts calculated to guide the Practitioner at the bedside of the patient, and appears to have neglected nothing that could render his book useful for those who may undertake to write on the same subject hereafter. We need not express an opinion as to the value of his work, after the unusual care we have bestowed upon its analysis.

Intorno ad un Viaggio fatto a pro' degli Infermi Indigenti della Corsica durante gli anni 1845, 1846 *e* 1847. Dal Dr. Paolo Fabrizj, da Modena. Nizza: 1856.

Account of a Journey in Aid of the Indigent Poor of Corsica, in the years 1845, 1846, *and* 1847. By Dr. P. Fabrizi, of Modena. Nice: 1856. 4to. Pp. 29.

For several weeks past the tall remarkable figure of an Italian Surgeon has been seen in the wards and operating theatres of several metropolitan Hospitals, and many of the London Surgeons have made the acquaintance of Dr. Fabrizi, the author of the pamphlet before us. An exile from his native land, banished by those who would crush out every spark of liberty before it can burst into light, he imposed on himself a mission of charity, and devoted three years to a journey through Corsica, healing the sick in the most remote villages, seeking out the halt, the blind, and the maimed, and with no other recompense than the satisfaction of doing good, and the benedictions of those he had assisted, bringing to the aid of the suffering poor all the good that modern medicine and surgery can afford. Truly a noble mission! Let us see how it was carried out.

Dr. Fabrizi performed 952 operations during his three years in Corsica. He performed lithotomy, excisions, amputations, extracted cataracts, formed artificial pupils, removed tumours and diseased bones, cured hare-lips and club-feet, and treated many acute cases of disease and serious accidents which otherwise would have been left to the healing effects of nature, or the meddlesome interference of uneducated empiricism.

We do not intend to follow our author through his account of these operations and their results, or quote his interesting remarks on the effect of the sobriety of the Corsicans, the simplicity of their food, and their constant existence in the open air, as favourable conditions for the healing of large wounds, and the success of operations generally. Those who practise in the large Hospitals of large cities may be excused some little surprise at a success so far beyond their own experience.

We can only say, in conclusion, that we trust the author will take with him to his abode at Nice new and improved modes of treatment gathered during his visit to London, and express the hope that he may be enabled again to undertake another of the beneficent missions to which he has already devoted himself. These are deeds which honour a Profession never backward in the cause of charity, ever ready to do good, and to find in doing good its own reward.

PROGRESS OF MEDICAL SCIENCE.

Selections from Foreign Journals.

STATISTICS OF COILING THE FUNIS.

By Dr. WEIDEMANN.

Dr. Weidemann states that among 28,430 deliveries the funis has been found coiled around the child in 3379 instances. In 3230 of these it was coiled around the neck, and in 149 around other parts of the body. Of the 3230 cases, 2546 consisted in a simple coil, and in 684 there were several coils. In relation to the causes of this occurrence, it is interesting to notice that of 1788 cases occurring at the Marburg Midwifery Institution, the funis was in 80 (1 : 22 . 2) under 15 inches, and in 183 above 25 inches (1 : 9 . 71) in length; that in 54 (1 : 33) there was very little liq. amnii, and in 41 (1 : 43 . 6) there was very much; in 165 (1 : 10 . 8.) the child was under 5 pounds weight, and in 28 (1 : 61. 7.) it was above 8 pounds. Therefore, among the favouring causes of the occurrence may be mentioned a long funis, abundance of liq. amnii, and a small child.

Among 2930 infants born at Marburg 182 (1 : 16 . 09) were dead, and 251 (1 : 12 . 41) were still-born. Of 725 born with coiled funis, 45 (1 : 16 . 11) were dead, and 72 (1 : 10 . 06) were still-born. Of the 45 dead-born, in 18 only could the death be referred to this alone, *i. e.* only 1 : 40 . 2 in the 725 examples of coiling. From an examination of the figures derived from the midwifery institutions at Dresden, Göttingen, Würzburg, Berlin, and Marburg, it results that of 13,720 new-born infants, 902 (1 : 15 . 21) were born dead; while in 1217 instances of coiling of the funis 31 children were born dead, whose death could be attributed to that circumstance, giving a proportion of 1 : 39 to the coilings, and 1 : 19 to the number born dead.

Thus, as (1) the 16th child among new-born children in general, as well as among those in which coiling has taken place, is born dead; as (2) the 12th child among the new-born in general, and the 10th among those around whom the funis is coiled is born still-born; and as (3) in 1 child in 40 only can this coiling be regarded as really the cause of death, it is evident that this accident does not occupy a very prominent place.

Monatschrift für Geburtskunde, Band viii. p. 355.

ON THE VAPOUR OF SHEEP'S LIVER IN HEMERALOPIA.

By Dr. ROSMINI.

Dr. Rosmini in the present paper details two cases confirmatory of the conclusions derivable from those already published by Dr. Quaglino. The latter practitioner having met with many cases of hemeralopia among the Piedmontese soldiers under the walls of Verona and Mantua, towards the end of 1848, was induced to try the popular empirical remedy; and he published afterwards an account of the complete success which had attended the experiment—a remedy, too, which his own views of the dependence of the disease upon general disorder in nowise before led him to believe in the efficacy of. The liver of different animals has been for ages the popular remedy; and that whether employed as food after cooking, applied in slices to the eye, or boiled in a sufficiency of water, the fumes of which are then directed towards the head. Scarpa tried the remedy in one very complicated case, and failed. The two cases here related occurred to Quaglino after the ten he had published, as a selection from numerous cases he had so treated. To make the result as certain as possible, these two cases were first treated by the vapour of common water. No effects followed, while recovery followed a very few applications of the vapour produced by the decoction of the liver.—*Omodei Annali*, vol. clviii. p. 485.

ON THE PHARMACEUTICAL EMPLOYMENT OF COCOA-NUT OIL.

By Dr. PETTENKOFER.

For some years past cocoa-nut oil has been employed in the Munich Hospitals in place of lard, as being far less liable to become rancid. It is especially suited for frictions, as the warmth of the skin speedily renders it completely fluid and absorbable, while lard remains unabsorbed, soiling the linen and clothes, and in spite of all cleanliness, giving rise to a

rancid smell. Ointments of iodide of potassium, made with lard, even when quite fresh, speedily become more and more yellow, pure iodine in place of the iodide being present. Made with cocoa-nut oil, there is not the least change of appearance for two months or more. The still frequent employment of butter in eye-salves, might advantageously be replaced by that of cocoa-nut oil. Various ointments, too, if prepared with this, might be kept ready prepared in the shops, as they would not then undergo the changes they do when made with lard. Moreover, this oil will combine with a third more of water or other fluids than lard will—a matter of importance for the combination of extracts and solutions of salts. It is of a moderate price, usually of a very white colour, and possesses a peculiar smell, which is not disagreeable to most persons.—*Buchner's Report*. Band v. p. 485.

GENERAL CORRESPONDENCE.

ON ABLATION OF THE CUBOID BONE.

[To the Editor of the Medical Times and Gazette.]

Sir,—In a communication on this subject, which you did me the honour to publish in your number for June 27, I stated my belief that ablation of the cuboid bone was not necessary for the removal of talipes varus, and I gave some reasons in support of that statement. Mr. Lonsdale, replying to this communication, agrees with me, and says, "this difficulty (the replacement of the cuboid bone) can be overcome by mechanical means, and this is the best argument against the necessity for removing the bone."—*Medical Times and Gazette*, July 11, 1857, p. 33. As this was specially the subject of my paper, I am delighted to find that this opinion which I ventured to express is "correct, and free from error."

Mr. Lonsdale is scandalized, however, that I, being attached to the Orthopœdic Hospital (where, "from the vast number of cases that are brought together, a corresponding amount of experience *ought* to be obtained"), should assert that the cuboid bone is not a real obstacle to the removal of distortion.

Every one knows that, in the treatment of talipes varus, the contracted muscles and ligaments and the displaced bones are obstacles which have to be overcome before distortion can be removed; but as these obstacles are not insuperable, but require patience and skill in their removal, I am justified, when speaking of the operation of excision of a tarsal bone for the removal of varus, in saying that this bone is not a real obstacle to the removal of distortion. The expression is to be understood relatively, and not absolutely. In Mr. Lonsdale's words, it may be said that "this difficulty can be overcome by mechanical means, and this is the best argument against the necessity for removing the bone."

Mr. Lonsdale is doubtless a hasty reader, for he does not read correctly. He writes, "Mr. Brodhurst says that the scaphoid bone offers the greatest obstacle in the treatment of varus." Now, I am infinitely obliged to Mr. Lonsdale for giving me credit for this discovery; but I cannot claim it, for no statement to that effect is to be found in my communication. Indeed, I do not know that it occurs elsewhere than in Mr. Lonsdale's writing. I will therefore not dispute with him the merit of the assertion.

But I have stated in a treatise on club-foot which I have lately published, "that the unfolding of the transverse arch of the foot is the most difficult part of the treatment of varus." Yet in the face of this, Mr. Lonsdale is "surprised that Mr. Brodhurst should be ignorant" that the real difficulty in the treatment of varus is "owing to the wedged and *doubled-in* condition of the cuboid and metatarsal bones of the little and fourth toes."

Also, apparently, Mr. Lonsdale does not like the statement, "rotation of the scaphoid bone is in the first instance to be overcome." I regret that I cannot take credit to myself for the originality of this remark. It has been made before me by Guérin and others; and in Paris, as well as in Germany, the practice is in conformity with the teaching. I am well aware that rotation of the scaphoid bone frequently is not entirely overcome; but notwithstanding Mr. Lonsdale's assertion, I will repeat, that unless this rotation of the scaphoid bone be overcome, the inner edge of the foot can never be normally in contact with the ground, even though the transverse arch of the foot shall have been otherwise unfolded and the bones have been replaced in their normal positions.

It is amusing that Mr. Lonsdale should put statements into my mouth, and then, forsooth, charge me with ignorance for uttering them. I am, etc.

Brook-street, July 13. Bernard Brodhurst.

THE TEMPERATURE OF LIQUIDS.

[To the Editor of the Medical Times and Gazette.]

Sir,—Authors of works on chemistry are almost universally silent on a most important fact in relation to the temperature of liquids. It is this: The temperature of any liquid not in a state of equilibrium varies with the depth. For instance, if a thermometer be introduced to different depths in warm or cold water, provided the water has not attained a settled temperature, it will indicate different degrees of heat, falling as it descends.

This, of course, results from the law according to which the density varies with the temperature, and depends upon the unequal rate at which different portions of a liquid gain or lose heat.

Every practical chemist is aware of this fact, and endeavours to obviate all errors which may arise from it by stirring any liquid which is warming or cooling before he introduces a thermometer to ascertain its temperature. But surely it is worthy of more regard than is generally bestowed upon it in works on chemistry.

In illustration, I append the following tables.

These observations were made upon common water in a tumbler. The tumbler was four inches deep, and in each instance it was filled to within half an inch of the top.

Expt. 1. In a room the temperature of which was 60°.

At the commencement the thermometer, introduced to the depth of an inch below the surface, rose to 87°; and when passed down to within half an inch of the bottom, it stood at 84°.

At the end of an hour the water was well stirred.

At the end of two hours the temperature, just below the surface, was 60°, and near the bottom 60° also.

Experiment II.

Temperature of room 60 degrees.

	Deg.		Deg.
1st minute. Thermometer introduced just below the surface . . .	87	After 15 minutes—above	79
		,, ,, below	76½
To within half an inch of bottom . .	(a)84½	After 20 minutes—above	77
		,, ,, below	75
After 5 minutes—above	84	After 30 minutes—above	74
,, ,, below	80	,, ,, below	73
After 10 minutes—above	82	After 60 minutes—above	65½
,, ,, below	78	,, ,, below	65

Experiment III.

Temperature of room 60 degrees.

	Deg.		Deg.
1st minute—above . .	88	After 30 minutes—above	73
,, ,, below . .	85	,, ,, below	72
After 5 minutes—above	85½	After 40 minutes—above	71½
,, ,, below	83½	,, ,, below	70½
After 10 minutes—above	78	After 50 minutes—above	70
,, ,, below	76	,, ,, below	69¾
After 15 minutes—above	76	After 60 minutes—above	68
,, ,, below	74	,, ,, below	68
After 20 minutes—above	74½	After 70 minutes—above	67
,, ,, below	73	,, ,, below	67

Experiment IV.

Temperature of room 60 degrees.

	Deg.		Deg.
1st minute—above . .	42	After 15 minutes—below	44
,, ,, below . .	41	After 20 minutes—above	45½
After 5 minutes—above	43	,, ,, below	44½
,, ,, below	42	After 30 minutes—above	47
After 10 minutes—above	44	,, ,, below	45¾
,, ,, below	43	After 60 minutes—above	49¾
After 15 minutes—above	45	,, ,, below	49

(a) The water had been previously shaken.

EXPERIMENT V.

Temperature of room 60.

	Deg.		Deg.
1st minute—above .	. 47	After 20 minutes—below	49¾
,, ,, below .	. 46	After 30 minutes—above	51
After 5 minutes—above	49	,, ,, below	50½
,, ,, below	48¼	After 40 minutes—above	52
After 10 minutes—above	49½	,, ,, below	51½
,, ,, below	48½	After 50 minutes—above	53
After 15 minutes—above	49½	,, ,, below	52½
,, ,, below	49	After 60 minutes—above	54
After 20 minutes—above	50¼	,, ,, below	53⅓

Perhaps some who are conversant with the general fact will be surprised at the striking evidence of it which these tables furnish.

I regret that I have not more time at my command to devote to this subject, for there are many interesting details connected with it worth working out. For instance, the influence which the character of the liquid, its depth and temperature, have upon the difference; and the one indicated in these tables, the rate at which the difference decreases as the temperature of the liquid approaches that of the surrounding medium.

It is very probable that the whole subject has been fully investigated, but I know not where.

S.

PROPER SUBJECTS FOR MEDICAL RELIEF.

[To the Editor of the Medical Times and Gazette.]

SIR,—In reference to a paragraph in your leading article of July 11, touching a letter addressed by Mr. Griffin to the Poor-law Board, as to "who are proper subjects for Medical relief," may I be permitted to say a few words? And first, I would respectfully, and with deference to your observations, intimate that the poor rates are not burthened by throwing the cost of Medical relief upon the parish. The burthen to all intents and purposes is upon the Medical officer, because his salary is fixed, though his engagement is "to attend all paupers falling sick," etc.

Now, in one large parish, particularly, in my district, the orders became so universal and indiscriminate, that I was perpetually being called on to attend a single man, being a member of a benefit club; the wife of a man in full earnings, and without a child; domestic servants sent home ill; the only child of a man in full earnings, etc.; that I was induced last autumn to appeal to the Poor-law Board on one particular case. I was some time before I could obtain the point I wished, having among other points ventured to suggest as a question to that body, "That some line should be laid down for the different authorities, to avoid the indiscriminate distribution of orders for Medical relief." The nearest approach to an answer came from Whitehall some weeks after, viz. December 24, and which paragraph I copy:—"An overseer has, however, no power to give relief, either Medical or otherwise, except in a case of sudden and urgent necessity, or sudden and dangerous illness."

If you see the case as I do, and deem this worthy of notice, it may be useful to both Medical officers as well as Parochial authorities. I am, &c.

FREDERICK MANBY.

East Rudham, Rougham, July 14, 1857.

REPORTS OF SOCIETIES.

ROYAL MEDICAL AND CHIRURGICAL SOCIETY.

TUESDAY, JUNE 23, 1857.

Sir C. LOCOCK, President, in the chair.

A paper, by Dr. EDWARD SMITH, illustrated by a drawing from life, was then read,

ON THE CLOSURE OF THE THROAT WITH THE LARYNX AT ITS UPPER ORIFICE.

In this paper the author reports his observation, that the closure of the larynx at its upper orifice is accompanied by a simultaneous closure of the œsophagus at that part, and the conversion of the pharynx into a cul-de-sac. It may be seen more or less perfectly in all cases in which the epiglottis can be freely exposed. It is produced by the elevation (ordinarily) of the larynx with the epiglottis, erect to the extent of about half an inch, and a carrying backwards of the whole to the posterior wall of the pharynx. At the same time the posterior wall of the pharynx is drawn forwards, its lateral walls with the tonsils are drawn inwards, near to the central line, and partially everted, and the whole pharynx at the root of the tongue and epiglottis is pursed up so as to be drawn inwards and upwards towards the central line. When the action is extreme the epiglottis is placed in contact with the posterior wall of the pharynx, and the pillars of the posterior arches apply themselves laterally to the same fibro-cartilage. All these actions are consentaneous and co-ordinate, and can be produced, withdrawn, and repeated at will, and by them the cavities of the lung and stomach are cut off from communication with the mouth. He considers it to be of the nature of a sphincter action, and to be due mainly to the middle, and perhaps the superior construction of the pharynx, by which the posterior wall of the pharynx is brought forwards, the cavity of the pharynx contracted, and the larynx made to ascend. It is produced in expulsatory efforts, and may be felt by an inquirer in the act of "hawking," when, after the preliminary closure of the larynx, the air is forcibly expelled, and conveys to them the sensation indicative of the closure of the partial re-opening. It is perfect in the first part of the act of vomiting, when the œsophagus is then closed, and is found more or less perfectly in coughing, in the expulsatory efforts of dejection, and the act of raising weights. The epiglottis is not carried back to the pharynx in all attempts of this kind—attempts which necessarily vary much in intensity—so that it is open to inquiry how far the presence of the epiglottis is necessary to the closure described. The author thus considers this to be a normal and a protective power, but that it is also capable of assuming a spasmodic or continuous action, and thus to render this closure a diseased action. He referred to the dyspnœa resulting from inspiration of air of different degrees of temperature, of irritating vapours, as chloroform; as also the deglutition of fluids or solids, which are mechanically or chemically irritating; to the dyspnœa attending bronchitis, hooping-cough, laryngidus stridulus, epilepsy, globus hystericus, and to the gurgling in the throat in the act of dying, as subjects for inquiry in reference to this mode of closure. He did not form any opinion as to whether true closure of the larynx can occur at the vocal chords without deposit.

Mr. HENRY LEE said he had seen a case at the Lock Hospital, in which the patient had lost the whole of the upper maxillary bone, and the back of the fauces could be brought into view, enabling him (Mr. Lee) to observe that at each act of deglutition the sides of the pharynx were approximated, almost meeting in the centre, in the way described by Dr. Smith.

Dr. RICHARD QUAIN thought that the author had been describing the ordinary phenomena of deglutition, which he had confounded with the closure supposed to take place at the upper part of the larynx.

Mr. WOOD considered that the bony attachments of the pharynx were such as to prevent any lateral action which could influence the glottis, and that the action which had been described had reference only to deglutition.

Dr. SMITH maintained that the action was independent of swallowing; and regretted that his patient was not present, that the members might see the movements in question.

A paper, by Dr. C. HANDFIELD JONES, communicated by SPENCER SMITH, Esq., was then read, comprising

ILLUSTRATIONS OF AGUISH DISORDER PREVALENT IN LONDON DURING THE LAST TWO OR THREE YEARS.

The author, while expressing a doubt whether the cases selected presented any very striking points, was of opinion that the series was not without value as illustrating a frequent character of disease; and he hoped that their consideration might shed some light on various morbid phenomena of common occurrence, yet but imperfectly understood, and often misinterpreted, and so might render their treatment more rational and satisfactory. He wished the cases to be regarded as experiments in which the nature of

the morbid action was to some extent inferred from the mode in which it was affected by remedial agents. He did not consider the evidence demonstrative; he only claimed for it that the inferences should be regarded as highly probable. Information of this kind, though very imperfect, may, after all, be of far more use than the most exact determinations of the balance and the microscope.

He premised the following statements:—

1. That local heat, congestion, and sometimes inflammation, may be produced by paralysis of the vaso-motor (sympathetic) nerves of a part.
2. That the phenomena of fever can be well accounted for on the view of paralysis of the sympathetic system.
3. That there is good reason to believe that neuralgia and dysentery may be the exponents of malarious influence as much as a true ague or remittent.
4. That there is much cause for believing that the vicinity of canals is unhealthy, and that they generate a poison producing effects like those of malaria.
5. That the evidence respecting the production of malaria is such as makes it impossible to affirm that it may not be generated by any moist surface in the process of drying.
6. That in cases of obscure and refractory character the reaction of the system towards remedies, and the effect of change of air, may afford most material aid towards forming a correct idea of the cause and nature of the disease.
7. The term, malarious disorder, as used by the author, is not intended to assert that the essential cause is always identical with marsh miasma; but to convey the idea of a disorder, which, however produced, is exceedingly similar to intermittent and remittent fever in many respects, maintaining the same pathological affinities, operating on the same (nervous) system, and requiring the same treatment.
8. The primary action of fever poison, most notably of malarious fever, in paralysing and depressing affections, especially the nervous system. The most deadly fevers are the algide, in which reaction never occurs; the phenomena usually called febrile are, if the excitement be not over great, a desirable indication that the system rallies, and resists the morbid influence. Hence, if when there is no intense malaria a patient suffer from continual, exceeding, causeless (apparently) depression and debility, occasional chills and flushes or perspirations, with an interlude of neuralgia at times, or a dysenteric or rheumatic attack, and if benefitted materially by quinine, iron, &c., and most of all by change to a healthy locality, the inference that he laboured under some aguish disorder seems legitimate. The system is habituated to the morbid action, and does not react strongly against it.
9. The tendency to relapse is most difficult to eradicate. Any cause of a debilitating kind will almost surely reproduce the morbid action in some form or other.

He then gave the details of the following 21 cases:—

1. Obscure aguish disorder.
2. Rheumatic nasal inflammation.
3. Cerebral attack; epistaxis. Benefit from quinine.
4. Cerebral attack; failure of cerebral power. Benefit from ferro-citrate of quinine.
5. Vomiting, febricitation, head-pain, exposure to ague poison. Cure by quinine and strychnia.
6. Cerebral attack; canal influence.
7. Scrofulous, epileptoid seizures. Cure by ferro-citrate of quinine and nux vomica.
8. Hemiplegia in a neuralgic subject. General tonic treatment—recovery.
9. Hemiplegia, first of right, afterwards of left side; canal influence.
10. Rheumation of the œsophagus; canal influence.
11. Rheumatism, thoracic neuralgia; depression; canal influence.
12. Cardiac neuralgia paralytica; slight hæmatemesis. Cure by quinine and iron.
13. Rheumatoid intrathoracic neuralgia.
14. Severe cardiac neuralgia; aguish attacks.
15. Periodic gastralgia. Cure by quinine and iron.
16. Rheumatic abdominal neuralgia.
17. Febrile affection; lingual neuralgia; cure by quinine and iron.
18. Dysentery and aguish disorder; cure by quinine and opium.
19. Dysentery, rheumatism; Crimean origin.
20. Nervous prostration, hæmorrhage from stomach; benefit from change of air, cinchonine and strychnine.
21. Fugitive œdema recurring frequently in various parts; cure by sustained tonic treatment.

The author then proceeded to cite ten instances in which more decided ague was originated or developed by a residence in London. In conclusion, he drew the following deductions:—

1. There seems much reason to think that an obscure form of aguish disorder prevails in (at least) the western parts of London; the phenomena being chiefly great debility, hyperæsthesia, failure of cerebral power, neuralgia of external or internal parts, gastric disorders, rheumatic affections, and ill-developed febrile paroxysms; quasi-apoplectic seizures are not uncommon.
2. Quinine, iron, and strychnine, are found of decided benefit, with a generous diet.
3. Change to a pure air is the best remedy.

It must be apparent that, if there be any truth in the foregoing views, those who ignore them entirely must practise at great disadvantage, and meet with continual disappointment. The opinions advanced in the paper are mainly derived from Dr. Macculloch's writings, whose opinions are strongly corroborated by Dr. Copland.

Dr. Webster believed that ague was now far less common in London than formerly. The disease was a very common one two or three hundred years ago, James I. and Cromwell having died from it. When the population of London was not one-fourth its present amount, the deaths from ague were more numerous than now. The average number of deaths in London from real ague did not exceed twenty-four or twenty-five per annum. The disease was more common in the western parts of London than in the other districts, a circumstance which he attributed to the excavation of a considerable quantity of virgin soil on which the new houses were erected, and to comparatively inefficient drainage. He agreed with the author in thinking that residence near canals was productive of aguish disorders, and instanced a case in which out of 1400 inhabitants in a village on the Rhine, in the neighbourhood of a new canal, more than 1100 suffered severely from those maladies, accompanied in many instances by dysentery. The disorders were more common in men than in women, and in middle than in early life, though the most severe case he had seen was that of a child six weeks old in the hospital at Tours, a district surrounded by canals and rivers. Quinine was doubtless the best remedy; but he had seen some exceptional cases in which that medicine had had no effect, and which had been successfully treated by purging. He should not be disposed to give quinine with strychnine, thinking that the one would counteract the effect of the other

Mr. Squibb said he had seen more cases of fever at the West-end during the past twelve months than in any preceding year, many of them assuming the character of remittent, and exhibiting an aguish tendency.

Dr. Stewart also expressed an opinion that aguish disorders were now of frequent occurrence in London, though ague itself, he said, was exceedingly rare, and when it did occur was generally found to have been contracted elsewhere. He had seen several severe cases in the neighbourhood of Notting Hill. The remedies he had employed were quinine and calomel, apparently incompatible medicines, but nevertheless beneficial in their effects. The cases he had seen rarely terminated under three weeks or a month, and often greatly reduced the strength of the patients.

Dr. Smith said he had also seen several cases of true ague in the vicinity of Notting Hill, and alluded to the existence of a large reservoir at the top of the hill, and of a quantity of marshy land in the district of Westbourne-grove.

Dr. Theophilus Thompson thought that some of the cases referred to by the author were not of an aguish character, but produced by impoverished blood, arising from various causes, physical or mental. He defended London from the charge of unhealthiness, and contended that persons going into the country "for a change of air" often experienced a change for the worse.

Mr. Radcliffe said that aguish disorders had been much more common than formerly in the neighbourhood of Westminster, leading to a greatly increased expenditure for quinine in the Westminster Hospital.

Mr. Spencer Smith repudiated the idea, broached by Dr. Webster, of the aguish disorders of the West-end having their

origin in the excavation of the "virgin soil," believing that the soil upon which the houses were built ill deserved that appellation, composed as it was of abominable filth of all descriptions, most injurious to the health of the inhabitants.

Dr. O'Connor mentioned that the soil was clayey from Gloucester-road to Shepherd's-bush.

A paper, by Edward Furley, Esq., communicated by Dr. Burrows, was then read, on a

CASE OF HYSTERICAL TETANUS.

The subject of this communication was one in which symptoms of what appeared to be in the first instance aggravated hysteria, were ultimately associated with others more distinctly tetanic. As a child, she had at 2 years of age an attack which was supposed to be encephalitis. At 7 she had severe scarlatina, followed by discharge from both ears. She grew up a delicate girl; menstruation appeared at 12; and at this time nervous symptoms began to show themselves. At the age of 16 her more serious illness began, after severe mental shock, with pains in the pelvic region of spasmodic character; in consequence of which she would jump out of bed, and run about the room screaming violently. There were various anomalous symptoms observed in succession, in which she seemed to undergo much suffering, and her screams were occasionally such as to alarm the neighbours. During the last few months she had fits apparently of a cataleptic character, with insensibility, but unaccompanied by delirium or coma. It was at this period more particularly that the tetanic spasms were seen, commencing in the legs, and assuming more or less the characters both of emprosthotanus and opisthotanus. She died exhausted at the age of 18 years and 8 months.

Post-mortem Examination.—Emaciation extreme. Cranium large and thin; arachnoid opaque; a good deal of subarachnoid fluid. Brain large; lateral ventricles each containing about half an ounce of serum; substance normal. Spinal cord was firm and natural in every portion; arachnoid opaque. The heart was small, but healthy; slight pleural adhesions at the upper part of the chest, and firm consolidation of one portion of the right lung. A pouch-like dilatation of the duodenum existed at its lower portion; in other respects all the abdominal viscera were healthy. The uterus was small, but showed no indication whatever of disease.

(To be continued.)

PARLIAMENTARY INTELLIGENCE.

HOUSE OF COMMONS.

PETITIONS.

The following petitions have been presented since our last:—By Mr. B. Woodd, from Mr. H. T. Whitling, Medical Practitioner at Knaresborough, in favour of Mr. Headlam's Medical Profession Bill; by Mr. Coningham, from J. H. Branfoot, M.D., Brighton, to the same effect; by Sir G. B. Pechell, from Mr. J. C. Burrows, Medical Practitioner, Brighton, to the same effect; by Mr. Dodson, from Dr. Vaughan, to the same effect; by Captain Pryse, from the Medical Officers of Newcastle Emlyn Union, praying redress of those grievances by which they have been so long oppressed; by Mr. Baxter, from the Royal Lunatic Asylum at Montrose, against the proposed new Lunacy Board for Scotland; by Mr. T. Duncombe, from Lincoln, against Compulsory Vaccination Act, 1853; by Major Sibthorp, from the Medical Officers of the Lincoln Union, and by Lord Goderich, from Mr. Henry Thomas, Surgeon, of Bingley, Yorkshire, in favour of Mr. Headlam's Medical Bill; by Sir John Potter, from the Medico-Ethical Association of Manchester, praying for the relief of Poor-law Medical Officers from their grievances; by Mr. Hankey, from Medical gentlemen in Peterborough, in favour of Mr. Headlam's Medical Bill; by Lord Elmley, from the Medical Officers of the Upton-on-Severn Union, and by Mr. Kendall, from the Medical Officers of the St. Blazey, Grampound, Mevagissey, St. Austell, and Fowey districts, in the county of Cornwall; by Sir H. Meux, from the Medical Officers of St. Alban's Union; by Lord Hotham, from Medical Officers of Skirlaugh Union, Yorkshire (East Riding); by Mr. Evans, from the Medical Officers of the Belper Union; by Mr. Ayrton, from Medical Officers of Bethnal-green; and by Mr. Brady, from Medical Students of the Westminster Hospital, for a redress of grievances; by Mr. Cox, from the Dentists of Liverpool, Manchester, Nottingham, Exeter, Edinburgh, Derby, Cheltenham, Birmingham, Brighton, Salford, Sheffield, and Hull, praying to be exempted from the operation of the Medical Bills; by Lord A. V. Tempest, from Mr. Storrow, Newbottle, county of Durham, praying for the adoption of Mr. Headlam's Medical Bill; by Sir J. Potter, from the Medical Students in Manchester, praying for a reconsideration of the duties and remuneration of the Medical Officers of the Poor-law Unions; by Mr. Evans, from eleven Medical Officers of the Basford Union, praying that the House will pass an Act for the redress of their grievances; by Mr. H. Berkeley, two petitions from Medical Practitioners in the city of Bristol, in favour of Mr. Headlam's Medical Bill; by Mr. Greenwood, from the Medical Practitioners at Bingley and Keighley, Yorkshire; by Mr. Rebow, from Mr. Seabrook, Medical Practitioner at Brighton, and from Mr. Mann, Medical Practitioner at Boxford, in Suffolk, in favour of Mr. Headlam's Bill; and from the same, for a redress of the grievances suffered by Surgeons of Poor-law Unions; by Mr. Handley, from the Medical Profession resident in Newark; by Mr. Hildyard, from the Medical Officers of Whitehaven Union, praying for a redress of their grievances; and by Mr. Buller, from William Spencer, Practitioner of Medicine at High Bickington, Devon, praying that the Medical Profession Bill introduced by Mr. Headlam may pass.

VACCINATION.

Sir J. Pakington inquired whether it was the intention of the Government to bring in any Bill to amend the law with respect to vaccination?

Mr. Cowper said, the President of the Board of Health had prepared a Bill on the subject, but delayed presenting it until the Bill now before the House respecting that Board should pass.

Sir J. Pakington said that an important paper on the subject had lately been printed, and was lying in the Vote-office. Had the Government any objection to distribute that paper to members?

Mr. Cowper believed that the paper in question was one of great interest and of remarkable research; but according to the rules of the House it was not circulated to members, but was only given to those who applied for it.

THE DUBLIN HOSPITALS.

On the vote of £3985 for the Westmoreland Lock Hospital in Dublin,

Mr. Cowan objected to the item, and stated that the noble member for the city of London (Lord J. Russell) when he was at the head of the Government had proposed to reduce the allowances to the Dublin Hospitals at the rate of 10 per cent. per annum, until they altogether ceased. In 1854, on the motion of the hon. member for Dublin, the subject was investigated by a committee, who recommended that the grants should be continued. The commissioners appointed at the suggestion of that committee recommended that the total sum granted for the support of the Dublin Hospitals should not exceed £15,600, while the aggregate amount now asked for, was £19,017, or an excess of nearly £4000. In Liverpool, Manchester, Birmingham, and other large towns, there was a large immigration of poor Irish, for whose support the ratepayers were compelled to provide from their own resources. The people of Scotland were also about to be called upon for large contributions for the establishment of lunatic asylums; and if it was right that grants similar to that now under consideration should be continued, the House ought to decide upon what principle the money of the State was to be applied to such objects. He therefore proposed that the recommendation of the committee of 1854 in favour of a certain fixed and specified sum should govern the House on this occasion, and that the £2600, less the £850 voted on account last session—in other words, £1750—should be the sum granted for the Westmoreland Lock Hospital for the present year.

Mr. W. Williams said it was extraordinary that, in the face of complaints from year to year, the grant for this Hospital should on this occasion be £2,770 more than the grant of last year.

Mr. Wilson said a Commission was appointed for the pur-

pose of inquiring how the £16,000 granted by the House for the support of those Hospitals should be applied. That Commission recommended a certain distribution of the funds, which the Government of course adopted. Besides, an Act of Parliament passed last session which confirmed the proceedings both of the Committee and the Commission.

Mr. VANCE recalled to the recollection of the Committee that the grants for these Hospitals were guaranteed by the Act of Union, and had continued ever since uninterruptedly, and that a Committee of that House, of whom eleven were English and four were Irish members, had recently recommended their continuance. He added, that on a division thirteen members of the Committee voted for the continuance of all the grants, and that the grant which they were unanimous in recommending should be continued without reduction was the very one now under discussion.

Mr. COX had sufficient respect for the city of Dublin to believe it was rich enough to support these Hospitals by voluntary contributions.

Lord NAAS said that in fact three of the largest London Hospitals were supported by public moneys, being endowed with the revenues of monasteries suppressed in the reign of Henry VIII.

The vote was agreed to, and also votes to make up the following sums:—£900 to the Rotunda Lying-in Hospital; £400 the Coombe Lying-in Hospital; £7,600 the House of Industry; 3,100 the Cork-street Fever Hospital; £600 the Meath Hospital; £200 St. Mark's Ophthalmic Hospital; £1,805 Dr. Steevens's Hospital; and £427 the expenses of the Board of Superintendence.

PUBLIC HEALTH ACT.

Mr. COWPER, in moving for leave to introduce a Bill to amend the existing Public Health Act, said that one object of the Bill was to repeal the power at present enjoyed by the General Board of Health, of applying the provisions of the Act to towns without the consent of the inhabitants. The present Bill would give power to the General Board, with the consent of the inhabitants of any town which might desire to enjoy the benefit of the Act, to define boundaries, and to make provisional orders with respect to local acts, and to perform those other acts which they had at present power to carry into effect without the consent of the inhabitants. It would be strictly a permissive Bill, and towns might adopt either all or any one or more of its provisions, as they pleased. He believed that it was much desired by the towns themselves, and he hoped that no objection would be raised to it of so serious a character as to prevent its passing into a law. The hon. gentleman concluded by moving for leave to introduce the Bill.

The motion was agreed to, and the Bill was subsequently brought in and read a first time.

LITERARY SOCIETIES BILL.

The House went into committee upon the Scientific and Literary Societies Bill, the early clauses of which underwent alterations so important, that at length Mr. Hutt, who had charge of the Bill, moved that the Chairman leave the chair.

MEDICAL PROFESSION (No. 1) BILL.

Mr. HEADLAM, before moving that the order for the committee upon this Bill be discharged, wished to say a few words in explanation. After the House had assented to the second reading of the Bill it became the duty of those who were charged with the conduct of it to consider whether there was any prospect of being able to pass it during the present session. It appeared to them that it would be useless to proceed at present. He wished, however, to call the attention of the Government to this important and difficult subject, and as the House had by a considerable majority sanctioned the measure he had introduced, he thought it would be the duty of Government to bring in a Bill based upon the same principles. (Hear.) Should they do so, he undertook to give it his most earnest support; but if they should not do so, or should seek to legislate in the spirit of their recent Bill, he should offer his most strenuous opposition. The hon. member then moved that the order for the committee be discharged.

The motion was agreed to, and the Bill accordingly was withdrawn.

MEDICAL NEWS.

ROYAL COLLEGE OF SURGEONS.—The following gentlemen, having undergone the necessary examinations for the diploma, were admitted members of the College at the meeting of the Court of Examiners on the 10th instant:—

ADLINGTON, ROBERT, Blackwell, Derby.
DALTERA, JAMES JOHNSON, Dublin.
HARDING, EDWARD, The Grove, Hammersmith.
HARTLEY, JOHN HENRY, Thames Ditton.
WARDEN, T. M., Over Whitacre, Coleshill, Warwicksh.
WHITE, GEORGE F., 19, Park-terrace, Regent's-park.
WILLIAMS, JOHN JAMES, late B. M. Staff, Ottoman Army, Crimea, Guilsbro', Northamptonshire.

At the same meeting of the Court, Mr. WILLIAM GORDON JAMES AYRE, of the Royal Marines, passed his examination as Naval Surgeon. This gentleman had previously been admitted a member of the College, his diploma bearing date the 2nd of August, 1850.

APOTHECARIES' HALL.—Names of gentlemen who passed their examination in the Science and Practice of Medicine, and received Certificates to Practise, on July 9, 1857:—

BLACKETT, EDWARD RALPH, Piltown, Co. Kilkenny.
BROOKHOUSE, JOSEPH ORPE, Brighton.
DAVIES, JESSE CONWAY, Holywell.
KNIGHT, A. S. P., James-st., Buckingham-palace.

DEATHS.

IRVINE.—On the 3rd instant, at Moville, near Londonderry, Ireland, in the 73rd year of his age, John Irvine, Esq., Surgeon R.N., for many years Surgeon and Agent of the Admiralty for sick quarters in that district.

ROBERTS.—On the 7th instant, at New Romney, Kent, Thomas Roberts, Esq., Surgeon R.N., aged 75.

WHYTE.—On the 4th instant, at Naples, Robert Whyte, M.D.

APPOINTMENTS.

LIVERPOOL SOUTHERN HOSPITAL.—At a meeting of the Committee of this Hospital, held in the Board-room on June 25, it was unanimously agreed to elect Mr. Joseph J. Pope, M.R.C.S., L.A.C., L.M., Senior House-Surgeon, and Mr. John M. Bateson, Junior House-Surgeon, to that institution."

George Welford, Esq., was unanimously elected (July 2) Surgeon to the Sunderland Infirmary, a vacancy having occurred by the resignation of W. Mordey, Esq., Senior Surgeon.

ROYAL COLLEGE OF SURGEONS.—At a meeting of the Council, last week, Mr. Edward Stanley, F.R.S., was elected President of the College for the ensuing year. This is the second occasion the honour has been conferred on this distinguished Surgeon; and Mr. Joseph Henry Green, F.R.S., and Mr. James Moncrieff Arnott, F.R.S., were elected Vice-Presidents. At the same meeting Mr. Thomas Tatum, the recently elected councillor, took his seat.

ROYAL HUMANE SOCIETY.—At the half-yearly meeting of this society, held yesterday, Mr. B. B. Cabbell in the chair, an honorary silver medal was unanimously awarded to Mr. Erasmus Wilson, who saved a woman, aged sixty, in the Regent's Canal, Regent's-park, on the 22nd of April, 1857.

PENSIONS GRANTED.—Dr. William Pultency Alison, £100, 10th of November, 1856 (late Professor of the Practice of Physic in the University of Edinburgh), in consideration of his scientific attainments.—Mrs. Margaret Gavin, £50, 15th of November, 1856, in consideration of the distressed circumstances in which she has been left on the death of her husband, Dr. Gavin, who was accidentally killed in the Crimea, while employed in the public service.

MEDICAL BENEVOLENT FUND.—At the annual general meeting of the subscribers to this fund, held on Tuesday, July 14, Sir James Clark, Bart., F.R.S., was re-elected President, William Newnham, Esq., was elected Vice-President, and Joseph Toynbee, Esq., F.R.S, was elected Treasurer in the place of Mr. Newnham, who resigned that office.

Mr. William Stone, upwards of 40 years a faithful servant of the College of Surgeons, died on the 10th inst., aged 77, at the residence of his friend, David Powell, Esq., M.R.C.S., of Amwell-street, Claremont-square.

Medical Benevolent College.—On Tuesday a handsome chapel, which has just been attached to this college at Epsom, was opened for divine service by the Bishop of Winchester. A considerable number of the friends and supporters of the institution were present on this occasion. At 11 o'clock the visitors, with the inhabitants of the college and various officials connected with its management, proceeded to the chapel, when divine service was performed by the Rev. Mr. Thornton, head master of the school, and the opening sermon preached by the Bishop of Winchester. At the conclusion of the service the visitors returned to the school-room, where the distribution of the prizes which had been awarded at the Christmas and Midsummer vacations was made by the right rev. prelate, who marked the delivery of each reward by a few most affectionate and encouraging remarks to the successful competitors. The company afterwards partook of an excellent *déjeûner*, at the conclusion of which a selection of vocal music was performed by the boys in the school, which spoke well for the care of their harmonic training. The new chapel is a small but handsome building, in the Elizabethan Gothic style. The greater part of the expense attendant on its erection was borne by a number of ladies, who among themselves subscribed the requisite amount. The arrangements reflect the greatest credit on Mr. Propert and the Council.

Murrain of Cattle.—On the 5th of June a Bill for the prevention of contagious diseases among cattle was read a second time in the House of Commons, and referred to a select committee upstairs. This committee, having examined witnesses, handed in their report a few days ago, and it was yesterday published by order of the House. The committee report that they are strongly impressed with the necessity for adopting every available precaution against the spread of infectious and contagious disorders among sheep, cattle, and horses in this country; but that the evidence adduced before them shows the difficulty, if not the impossibility, of legislating further upon the subject without seriously interfering with and hampering the legitimate operations of trade in these animals; and the committee are not therefore prepared to recommend to the House to proceed further with the Bill to them referred. With reference to the question of the spread of such disorders being increased by the importation of sheep and cattle affected with any such disorders from abroad, the committee are of opinion that the same difficulties present themselves in the way of further legislation on that subject as have already been adverted to in this report with reference to the home trade. The committee are also of opinion that ample powers for the purposes of precaution are already vested in the Executive, and they would earnestly recommend the utmost vigilance on the part of the proper authorities in dealing with a question of such vital importance, both to the producers and consumers of animal food in this country. The following witnesses were examined before the committee, viz.:—Mr. J. B. Simonds, Captain A. Campbell, Mr. J. Marriage, Mr. Kildee, Mr. T. Cullen, Mr. J. Cockburn, Mr. W. Heath, Mr. J. Freeman, Mr. W. Drake, and Mr. J. Law Hackett.

Court of Bankruptcy, Basinghall-street, July 13. (Before Mr. Commissioner Goulburn.) In re Dr. E. B. Beaumont.—This was a disputed adjudication meeting. The case, which involved a point of some nicety and importance as to trading, occupied the Court several hours. The proceedings will be best understood in the form of a descriptive summary:—Dr. Beaumont, of Highbury and Dalston, has an Edinburgh certificate to practise as a physician, he has also a certificate as a member of the Royal College of Surgeons. He is not, however, a member of Apothecaries'-hall. In conjunction with Mr. Francis Norton Erith, Mr Gibbons, Mr. Muckleston, Mr. Ball, Mr. Oram, and the Rev. Mr. Galloway, Dr. Beaumont became a director of the Constitution Life Assurance, Mr. Digby being the soliciter of the company. Mr. Palmer lent the directors jointly and severally a sum of 500*l.* for the purposes of the Company. Mr. Palmer opened a petition in bankruptcy against Dr. Beaumont for this amount, Mr. Digby being solicitor for the petition. Mr. Lawrance, for Dr. Beaumont, now disputed the adjudication. A physician or surgeon was not a trader in the eye of the bankruptcy laws, and it was only under the 5th and 6th of Victoria that an apothecary was for the first time declared to be so. The fact of Dr. Beaumont having sent in a bill "for attendance and medicine" was not sufficient evidence of his having acted as an apothecary. The bill was at the rate of only 3s. 6d. for each visit, and the medicine, although sent by "a tiger," had not really been charged for. It was a remarkable fact that Mr. Palmer doubted whether the other directors were able to pay, and that he should single out Dr. Beaumont, the Medical referee of the company, and that Mr. Digby should be the solicitor under the petition. Medical men were of all others the most liable to be gulled, and Dr. Beaumont's was not a case in which the law ought to be the most strictly viewed. He was not legally an apothecary, that was admitted, and he confidently submitted that there had been no trading within the statute. The Commissioner held that Dr. Beaumont having practised and described himself as an apothecary, he was estopped from setting up the plea that he was not an apothecary. Adjudication confirmed accordingly.

VITAL STATISTICS OF LONDON.

Week ending Saturday, July 11, 1857.

BIRTHS.

Births of Boys, 855; Girls, 811; Total, 1666.
Average of 10 corresponding weeks, 1847-56, 1354.

DEATHS.

	Males.	Females.	Total.
Deaths during the week	508	480	988
Average of the ten years 1847-56	...	...	976
Average corrected to increased population	...	...	1074
Corrected average for corresponding week in ten years 1847-56	498·1	478·2	976·3
Deaths of people above 90	...	...	..
Deaths in 13 General Hospitals	33	20	53

DEATHS REGISTERED DURING THE WEEK.

Causes of Death.	In the Week ending Saturday, July 11, 1857. Deaths of Persons. At all ages.	Under 20 Years of Age.	At 20 and under 40 Years of Age.	At 40 and under 60 Years of Age.	At 60 and under 80 Years of Age.	At 80 Years of Age and Upwards.	Averages of Temperature and Deaths in 10 Weeks.
Mean temp.	59° 6						62°9
Mean Temperature							
All Causes	988	562	130	141	131	24	976·3
Specified Causes	985	559	130	141	131	24	965·2
Diseases:—							
1. Zymotic Class	296	253	19	14	8	2	274·0
2. Dropsy, Cancer, and others of uncertain seat	40	6	6	19	9	..	44·9
3. Tubercular Class	172	77	56	34	5	..	191·2
4. Of Brain, Nerves, etc. ..	102	49	11	16	23	3	105·3
5. Of Heart, etc.	46	3	11	18	14	..	31·9
6. Of Respiratory Organs ..	94	49	6	13	24	2	95·9
7. Of Digestive Organs ..	62	26	9	14	12	1	60·5
8. Of Kidneys, etc.	14	..	6	3	5	..	12·0
9. Of Uterus; viz. — Puerperal Disease, etc. ..	5	..	1	4	..	..	9·9
10. Of Joints, Bones; viz.— Rheumatism, etc. ..	6	..	1	3	2	..	6·4
11. Of Skin, etc.	1	1	..	..	..	..	1·4
12. Malformations	3	3	..	..	..	..	3·4
13. Debility from Premature Birth, etc.	32	32	..	..	..	..	27·0
14. Atrophy	44	36	..	..	8	..	32·2
15. Age	34	..	..	..	18	16	37·6
16. Sudden	4	2	..	1	1	..	5·1
17. Violence, Privation, etc ..	30	22	4	2	2	..	26·5
Causes not specified.. ..	3	3	..	..	..	..	11·1

DEATHS IN SUB-DISTRICTS FROM EPIDEMICS

	Population. 1851.	Small-pox.	Measles.	Scarlatina	Hooping-Cough.	Diarrhœa.	Typhus.
West	376,427	..	1	1	4	20	5
North....	490,396	2	1	4	10	29	7
Central ..	393,256	4	8	3	6	26	10
East	485,522	1	4	4	14	30	9
South	616,635	..	1	8	6	28	10
Total..	2,362,236	7	15	20	40	133	41

METEOROLOGY.

From Observations at the Greenwich Observatory.

Mean height of barometer	29·745 in.
Mean temperature	59·6
Highest point of thermometer	79·4
Lowest point of thermometer	45·7
Mean dew-point temperature	51·5
General direction of wind	S.W.
Whole amount of rain in the week	0·30
Amount of horizontal movement of air in the week ...	610 miles.

TO CORRESPONDENTS.

A Surgeon sends us the direction of a parcel from a member of the Pharmaceutical Society—Cera Albi—but it does not do to argue too much from this. A man may dispense well and not know much of Latin grammar.

A Student, etc., Warwick, will find the Naval regulations in our last Student's Number. He would not obtain the other appointment without legal qualification.

Mr. Pope.—Thanks. Very acceptable.

Mr. Bradley.—The charge is a very moderate one.

A Constant Reader and Subscriber.—From the Poor-rates.

A Subscriber.—The fullest account of Wutzer's operation is in the 27th vol. of the Medico-Chirurgical Transactions. See also our 13th vol. p. 471.

The Elastic Zone.

TO THE EDITOR OF THE MEDICAL TIMES AND GAZETTE.

Sir,—"Artificial support" would not be needful to a "healthy child," if children were treated according to nature's laws: but the Elastic Belt provides against the bad effects of ignorance in nurses, who will risk injury to the spine by putting the infant in an upright position long before it has strength for such a trial of its physical powers. I have seen this want of judgment in women calling themselves experienced nurses because they have "filled that capacity for many years in the highest families." There is so much ignorance and consequent prejudice in these people, that I am quite sure an infant would be far safer in many cases with a young and unpretending nurse, under the superintendence and control of a sensible mother and a painstaking Medical man. So much of good or ill depends upon what goes on in the absence of the "Doctor," that it is his best policy, in order to insure the good effects of his visits, to give clear and unmistakable directions, as well as to be very investigating in his inquiries as to minor matters over which he has no immediate control. All this (and a great deal more that might be said) proves the great importance of training institutions for nurses, monthly nurses, and head nurses, and nursery-maids in families—even the latter should go into service instructed as to their duties; for while they are acquiring knowledge in the scene of action they may make some fatal mistakes and cause much mischief through ignorance, etc.,—just as a Chemist's apprentice may be acquiring his knowledge of poisons by the sacrifice of life as a lesson.

I am, &c. B.

M.R.C.S.E.—The Extra-Licentiates of the College of Physicians possess the privilege of practising in any part of England and Wales, except in London, and within a distance of seven miles.

A Union Surgeon.—If B became a candidate for the office, which was vacated by A in the manner described, B was no doubt guilty of a breach of professional etiquette. At all times such conduct is reprehensible, but especially at the present time, when it is more than ever necessary that the members of the Profession should stand by their order.

F.R.S.—Comparisons are at all times odious; but of the two distinguished Surgeons named by our correspondent, we should say that Sir Charles Bell has the greater claims to the gratitude and admiration of posterity, inasmuch as his researches into the Physiology of the Nervous System place him in the highest class of original investigators.

Obstetricus.—The fact of your not hearing the pulsations of the fœtal heart by auscultation of the abdomen does not prove that the woman is not pregnant; for the position of the child varies, and its heart may have been so placed as to prevent you from finding it.

Mr. J. B. Nelson.—It is very difficult to fix, with certainty, the smallest quantity of arsenic which might prove fatal; but speaking generally, it may be stated that three or four grains is a poisonous dose.

Sanguinaria Canadensis.

TO THE EDITOR OF THE MEDICAL TIMES AND GAZETTE.

Sir,—Dr. Pereira, in his "Elements of Materia Medica," gives the following account of this plant, vol. ii. p. 2071:—"Sanguinaria Canadensis is one of the best known acro-narcotics of this order (Papaveraceæ). In doses of from 10 to 20 grains it acts as an emetic. In larger doses it causes depression of pulse, faintness, dimness of vision, and alarming prostration of strength. Its active principle is an alkali called sanguinaria." Surely, if a plant possessing such properties were applied in quantity to an ulcerated surface, constitutional symptoms would occur from absorption. The above properties attributed to the Sanguinaria ought certainly to be known to any Practitioner who intends practising Dr. Fell's method of treating cancer. I am, therefore, anxious to call attention to the above, through the medium of your columns. I am, etc.

W. L. B.

A Railway Fee.

TO THE EDITOR OF THE MEDICAL TIMES AND GAZETTE.

Sir,—Permit me to send you a copy of the Testimonial I received, with a fee of 2 guineas for my attendance at Lewisham on Sunday night week last, from J. Adams, Esq., Surgeon to the S. E. R. Company.

I am, &c. W. Nicholas, Jun., Student of Guy's.

Guy's Hospital, Thursday.

"South Eastern Railway.

Copy.

"Mr. William Nicholas rendered essential service in the accident at Lewisham on Sunday night week last. Signed

"4, St. Helen's-place, July 9, 1857." "John Adams."

Mr. Bond's letter shall appear next week.

Dr. Child's next paper on the Medical History of the Kings of England wil appear next week, if possible.

Mr. W. Bowen May.—We have received a letter on the subject of an action about to be brought against a certain person, for the recovery of a sum of money said to have been obtained under false pretences. The defendant threatens to prove that the plaintiff was guilty of a disgusting habit, which the latter indignantly denies. We hope that Mr. Bowen May will persevere in bringing the matter before the Courts of Justice.

An Old Soldier.—The permanency of the appointment of the Poor-law Medical Officer is, as we have before remarked, clogged with the condition of residence within the district. While acquitting the Poor-law Board of any intentional cause of offence to the Poor-law Medical Officers, it is obvious that in many cases this condition will disqualify many from holding their appointments permanently, and, as our Correspondent remarks, the fact of residence may possibly be regarded as a disqualification for office altogether, inasmuch as those who do not reside in the district, even although they may be only a few yards out of it, may be ejected at any period by the Guardians. In answer to the questions of our Correspondent, we reply that the recent order does not render residence in the district imperative, nor are the Guardians compelled to elect residents; they may elect non-residents, and turn them out when they please.

COMMUNICATIONS have been received from—

Mr. Paget; Dr. Hood; Dr. Quain; Dr. Kirkes; Dr. Croker; Mr. Hussey; Dr. Fallot; Dr. Bosch; Dr. Hairion; Dr. Van Roosbroeck; Dr. Warlomont; Dr. Beatson; Dr. Moore; Mr. Manby; Dr. Fontaine Louis, Asti; Mr. Pope; Mr. White; Mr. Williams; Mr. Cooke; Mr. Merrett; Mr. Leete; Mr. Evans; Mr. Turner; Mr. Bradley; Mr. Nicholas; Mr. Parker; Mr. J. Bramwell; Mr. W. Smith; Mr. Graham; Mr. J. J. Pope; Mr. J. R. Cocker; Mr. J. Adams; Mr. J. G. Hope; Mr. J. Shilleto; Mr. J. Davies; Dr. McWilliam; Mr. Bond; Dr. Child.

APPOINTMENTS FOR THE WEEK.

18. *Saturday (this day).*

Operations at St. Bartholomew's, 1½ p.m.; St. Thomas's, 1 p.m.; Westminster, 1 p.m.; King's, 2 p.m.; Charing Cross, 1 p.m.

20. *Monday.*

Operations at the Royal Free Hospital, 1 p.m.; Metropolitan Free Hospital, 2 p.m.; Orthopædic Hospital, 3 p.m.

21. *Tuesday.*

Operations at Guy's, 1 p.m.

22. *Wednesday.*

Operations at University College Hospital, 2 p.m.; St. Mary's, 1 p.m.; Orthopædic Hospital, 3 p.m.

23. *Thursday.*

Operations at St. George's, 1 p.m.; Middlesex, 12½ p.m.; Central London Ophthalmic, 1 p.m.; London, 1½ p.m.

24. *Friday.*

Operations at the Moorfields Ophthalmic, 10 a.m; Westminster Ophthalmic, 1½ p.m.

ORIGINAL LECTURES.

ON THE CAUSE OF THE RHYTHMIC MOTION OF THE HEART,

BEING THE CROONIAN LECTURE DELIVERED AT THE

Royal Society, May 28, 1857.(a)

By JAMES PAGET, Esq. F.R.S., ETC.

I have selected for the subject of my lecture, the cause of the rhythmic motion of the heart; guided to this choice, partly by the belief that the Croonian lecture must have some relation to muscular motion, and partly by the interest which I have acquired in the subject in the course of observations extended, though with many and long interruptions, over some ten or twelve years.

It is not necessary that I should enter on any consideration of the various opinions that have been entertained on the cause of the heart's peculiar motion. Let me first show what it is, and how it differs from the other motions in the same body, which are visible to the naked eye.

In a beheaded tortoise, or any other of the Amphibia, the muscles of the trunk and limbs are usually in perfect rest, unless disturbed: those in the head may act so as to produce a kind of gasping and swallowing movements, at distant and nearly regular intervals (an imperfect kind of rhythmic motion): the digestive and other mucous canals are at rest, or move with slow worm-like actions; but the heart maintains, with perfect regularity, the rhythmically alternate contractions and dilatations of its auricles and ventricle; its several movements being ordered, not only in the manner of their succession, but in rhythm, *i. e.* in the proportions of time which they severally occupy.

Why is this difference? To what may we refer as the cause of this apparently peculiar mode of muscular movement? In answer, let me show (for it is a condition of the Croonian foundation that experiments should be shown) that the cause of the rhythmic action is in the heart itself; not in any of the great nervous centres through which other muscular movements are excited, including those in the separated head, which will cease at once on destruction of the medulla oblongata and brain.

The evidence of this is in the continued action of the heart after it is cut out of the body. It may remain at rest for a few minutes after the excision; but then, as if recovering from shock or fatigue, it again begins to act, and thus will continue for many hours acting as regularly as it did when its connexions were unbroken.

The time during which the action of the cut-out heart will be maintained is different in the several classes of the Vertebrata; but some such continuance may be observed in all, and in all the experiment is enough to prove that the rhythmic action does not depend either upon distant nervous organs, or upon the blood which naturally flows through the cavities of the heart; for as soon as the heart is cut out, its cavities are emptied and no blood flows through them.

Thus, then, for a first conclusion, we may be sure that the cause of the rhythmic action of the heart is something in the heart itself; and this, notwithstanding the variations of the rhythm, which may be produced by morbid or artificial states of organs far distant from the heart.

But the cause, whatever it be, is not equally in all parts of the heart; for when its parts are in certain manners separated, some continue to act rhythmically, and others cease to do so. If, for example, the cut-out heart be divided into two pieces, one comprising the auricles and the base of the ventricle, the other comprising the rest of the ventricle, the former will continue to act rhythmically, the latter will cease to do so, and no rhythmic action can be, by any means, excited in it. The piece of ventricle does not lose its power of motion, for if it be in any way stimulated, it contracts even vigorously; but it never contracts without such an external stimulus, and, when stimulated, it never contracts more than once for each stimulus. Without losing motility, it has lost all rhythmic power, and all appearance of spontaneous action. We can, indeed, make it imitate a rhythm by stimulating it at regular intervals, such as every two or three seconds; but in any experiment of this kind, it will presently appear how much sooner the motor force is exhausted by the artificially excited actions, than by the apparently equal actions of the natural rhythm.

Other sections of the heart, and experiments of other kinds, would show that the cause of the rhythmic action of the ventricle, and probably also of the auricles so long as they are associated with it, and not with the venous trunks, is something in and near the boundary-ring between the auricles and ventricle; for what remains connected with this ring, or even with a part of it in a longitudinally bisected heart, retains its rhythm, and what is disconnected from it loses rhythm.

An experiment related by Heidenhain (b), seems to show more precisely where the source of the rhythmic action of the ventricle is seated. If the ventricle of a frog's heart be separated, and every part of the septum of the auricles be removed from its base, so that its cavity may be perfectly single; and if, then, it be set upright on a board with some blood in its cavity and around it, it will be found that as pieces are cut away from its upper border, so its pulsations become less and less frequent, till at length, when a zone of a certain depth has been removed, they cease altogether. The depth of the zone to be cut away may be nearly one-third of the length of the ventricle; and somewhere in this zone we must assume lies that on which the rhythmic action of the ventricle, when alone or with part of the auricles, depends.

But wherever may be precisely the sources or centres of the rhythmic action of the heart, or any of its parts (and most of these details, I think, have yet to be determined, even for the hearts of Amphibia, and much more for those of other orders), these experiments seem enough to prove that the rhythm does not depend on the properties of the muscular tissue alone or independently. If it were so, it would be highly improbable that certain portions of the heart being separated should lose rhythmic action, and others just like them, so far as their muscularity is concerned, should retain it.

This conclusion is confirmed by many experiments invented by Professor Stannius (c), and often repeated by myself and others, with results varying little from those which he obtained.

Perhaps the most remarkable of them is, that if a ligature be tied tightly round the place of conflux of the great veins entering the auricles of a frog's or tortoise's heart, the rhythmic action immediately, or after a few beats, ceases, and is suspended for three or many more minutes, and then returns in the ventricle alone (I believe) at a much slower rate than it had before.

This result is not due to the stoppage of the flow of blood into the heart, for if the veins be tied separately at a distance from the auricles, the rhythm continues. Neither is it due to the loss or great diminution of mere motility; for if the heart thus brought to rest be stimulated, it acts once, or rarely more than once, its action travelling from the part stimulated over all its substance. The result seems due to an injury done to something beneath or behind the ligature, from or through which some influence would naturally be conducted from the conflux of the veins to the auricles, and thence to the ventricle; for in the other direction, *i. e.* in the trunks of the veins behind the ligature, even to a great distance from the auricle, rhythmic motion still continues, and is scarcely, if at all, changed. And by variously placing the ligature, it would be found that, wherever tied between the venous sinus and the auriculo-ventricular ring, all the parts behind it would retain, and all those before it would lose (at least, for a time), their rhythm.

This indication of the experiment (that the loss of rhythm, namely, depends on injury of something beneath or behind the ligature) is confirmed by another, whose whole import, however, I am quite unable to explain.

If, when a heart is thus brought to rest by a ligature tied round the conflux of the veins, another ligature be tied round the boundary ring of the auricles and ventricle, and including the bulbus arteriosus of the frog, or the two aortæ of the tortoise, the rhythmic action remains suspended in the auricles, but at once begins again in the ventricle, or, if it have not wholly ceased there, is much accelerated. We

(a) From the Proceedings of the Royal Society.

(b) Quoted in Canstatt's "Jahresbericht" for 1855, p. 130, from his "Disquis. de nervis organisque centralibus cordis." Berlin, 8vo.

(c) Muller's "Archiv.," 1852, p. 95.

thus obtain a condition of the heart in which the great veins and the ventricle act rhythmically, though not with the same rhythm, but the aurieles between them are at rest.

Now, in all these facts there appears sufficient evidence that the source of the rhythmic action of the heart is not in the muscular structure alone, or in its relation with the blood in the cavities, or in the vessels of the heart; for these things are not in any of the experiments more disturbed in one part of the heart than in another. The nutritive relations of the muscular tissue and the blood are sufficient for the maintenance of mere motility, but they are not sufficient for the maintenance of rhythmic motion; they can maintain the power of acting upon external stimulus, but cannot give spontaneity of action, or regulate the time or manner of acting.

It is interesting to observe in these experiments three different modes of action of the heart: (1.) the truly rhythmic, in which the contractions of its several parts, or of some of them when separated, ensue spontaneously (*i. e.* without evident stimulus or change of external conditions), and observe a definite order and proportion of time; (2.) such as may be excited by stimulus, which, beginning at the cavity stimulated (whichever it may be), are effected simultaneously, or with a scarcely appreciable difference of time, by all parts of the walls of that cavity; then follow, with a certain interval, in the other cavities; and then are not repeated in the same order, but give place to the true rhythmic action, which they may for once have prevented or inverted; (3.) those which ensue on stimulus, when the heart or any of its parts is utterly exhausted, and which commence at the point stimulated, and thence slowly travel once to all other points connected with it by continuity of muscle.

Now, of these three modes of action, the last may be ascribed to mere motility, such as the intestines and the stomach have, and such as is maintained by the nutritive relations of the muscular substance and the blood in its vessels. The second may be due to the same, acting with more energy; or it may be ascribed, as by Bidder(d) and Rosenberger(e), to the action of reflecting nervous centres in the ganglia of the heart. But what of the first, the rhythmic, which every experiment shows to be essentially different from both of these?

It is explicable, and all the experiments are consistent, on the belief (which many before me have entertained) that it depends on certain nervous centres in the nerve-ganglia of the heart; which centres, by spontaneous discharges of nerve-force, cause the muscular structures to contract. These centres (rhythmic centres as they have been called) being injured or hindered in their operation, the rhythm ceases, though the motor power is not lost; or these centres, being cut away with certain portions of the heart, the other portions cease to have rhythmic motion, though still capable of repeated single actions when artificially stimulated.

Such nervous centres may exist among the numerous ganglia in the heart, and the indications of their position in the frog's heart given by the experiments, agree very well with the dissections by Bidder and Rosenberger. There is, indeed, nothing in the structure or aspect of the ganglia presumed to be rhythmic, which can make us sure that they can act as nervous centres of peculiar force, much less (if it were possible) that they must act rhythmically. But the assumption of such rhythmic nervous centres is justified, not only by its sufficiency as an hypothesis, and by its accordance with the existence of ganglia in the appropriate places in hearts, but by the analogy of the only other example of naturally rhythmic muscular movements in our own or any other mammalian economy,—I mean the respiratory movements. These are certainly determined in their rhythm by the medulla oblongata. It is true, they are greatly influenced as to their rate and force, though not as to their very existence, by external conditions, and are amenable in a measure to the power of the will; and the rate and force of their rhythm are much more dependent, than are those of the heart's, on the conditions of distant parts. Nevertheless, essentially and habitually, the medulla oblongata is not only the nervous centre, but the rhythmic nervous centre, of the respiratory movements. When a certain portion of it is destroyed, the proper respiratory rhythm ceases, and nothing can renew it, whatever stimulus or variety of external conditions be present. Any of the respiratory muscles may be again stimulated to contraction; some of them will again, and for a few times, contract repeatedly and at regular intervals, imitating the old rhythm(f); but there is no longer any combination or timely succession of the movements of the many respiratory muscles, as for their proper purpose.

In like manner, it may be that the rhythmic movements of the lymphatic hearts in Amphibia depend on a part of the spinal cord as their nervous centre; but this is doubtful; (g) doubtful I mean, not whether there be a nervous centre for the rhythmic movements, but where it is seated. The case of the respiratory movements, however, is clear, and should be reckoned as of great weight in the argument for the nervous origin of the heart's action.

The experiments on the heart's action which I have shown, have been selected as the simplest and most significant. I pass by many more, and say concerning them only this,—that I believe there are none whose results are inconsistent with the belief that I have expressed as to the cause of the rhythmic action of the heart. There are some, of which the results are difficult to explain; but the difficulties relate to questions of nerve-physiology, (h) and do not affect the simple conclusion that the rhythmic action of the heart in the Vertebrata depends on the operation of nervous centres in the ganglia on or near the substance of the heart: I say, in the Vertebrata; for as yet we know (I believe) nothing of the origin of the corresponding movements in the Invertebrata, though we may well believe that in them, and especially in the lower among them, the rhythmic movements of any pulsating vessel, analogous to a heart, are independent of any nervous system. Such a difference in the two great groups would correspond with similar differences in nearly all other parts of their several economies. The more highly developed the nervous system is, the more are its operations influential in those of every other part and system; and, for the heart, we may suppose that the making-over of its rules of action to a proper nervous system is on purpose that it may the more quickly correspond and sympathize with other organs, with which, but for their connexion through the nervous system, it could only sympathize more slowly through the medium of the blood.

But, now, it will not have escaped you to question,—why are these nervous centres rhythmic in their action? granting all that has been said, why is it that these nervous centres accumulate and discharge nerve-force, as it would seem, not only spontaneously, but at time-regulated intervals? To put on them, rather than on the heart's muscles, the work of rhythm, is only to put the real difficulty of the matter a step further back.

This is very true; and I will add, that they who hold that the rhythmic, like the ordinary, action of muscles, cannot ensue without stimulus, are in the like predicament, at a step still further back; for how, it may be asked, is the stimulus (of the heart suppose) applied or generated at regular intervals? And the difficulty is not in the case of the heart alone, but in that of all the rhythmic muscular movements. For why, it may be asked, does the medulla oblongata rhythmically excite the respiratory muscles into action? and if it be answered that it is itself stimulated by venous blood, or by impressions on the pneumogastric and other centripetal nerves, then how does the venous blood, or any other substance, thus rhythmically and not constantly stimulate? Constant stimulus, or constant production of an excess of nervous or muscular force, might produce constant muscular

(d) Müller's "Archiv," 1852, p. 163.
(e) De centris motuum cordis. Dorpat, 8vo, 1850.

(f) Such surviving rhythmic movements of the respiratory muscles may, perhaps, be ascribed to the continuance of the rhythmic nutrition, of which mention is made in a later part of the lecture, and which, though not the primary cause of their rhythmic action, must coexist with it; but other than the respiratory muscles may thus for a time act rhythmically when dying, or after their nerves are divided. See especially the observations of M. Brown-Séquard in his "Experimental Researches." The facts may be very difficult to explain, but are not inconsistent with what I offer as the explanation of the rhythmic action of the heart.

(g) See the Experiments of Schiff, Mayer and Budge, in Canstatt for 1850, p. 126; and those of Heidenhain in the same, for 1855, p. 130.

(h) I refer, especially, to those on the pneumogastric nerves, of which the continued galvanic stimulus stops the heart's action. The phenomena observed in this and similar experiments appear to me very similar to those of shocks. As a violent shock of any kind may exhaust the power, or suspend the action, of the brain or spinal cord, so may a shock by violence or galvanic force similarly affect the power of the rhythmic nervous centres for the heart. And the general explanation of all may be, that the nutrition of a nervous centre, and thereby the maintenance of its power, requires rest, and that this rest cannot exist while nerves in relation with it are under irritation.

action, whether continuous or disorderly, but could not alone maintain a regularly interrupted action, in which the lengths of time of action and of inaction are in definite proportion.

This shifting of the question as to the cause of rhythmic motion suggests that we should enter on a larger inquiry, and take notice of whatever organic processes are performed with rhythm; and this seems the more necessary, while we consider that rhythmic action is not tied to any particular structure, whether muscular or nervous, nor employed in only one or or two purposes, as blood-movement or breathing; nor even limited to the animal kingdom; so that, really, the peculiarity we have to study is not one of force, or not one of force alone, but one of time as an element in the organic processes. No explanation of the rhythmic action of the heart, therefore, would be sufficient, which did not involve or appear consistent with some general law to which we may refer all other rhythmic organic processes, that is, all such as are accomplished with time-regulated alternations, whether of motion or any other change.

Probably the simplest example of rhythmic motions yet known is that detected by the acute researches of Professor Busk (i) in the Volvox globator. At a certain period of the development of this simplest vegetable organism, there appear, in each zoospore, or in the bands of protoplasm with which the zoospores are connected, vacuoles, spaces, or cavities, of about $\frac{1}{9000}$th of an inch in diameter, which contract with regular rhythm at intervals of from 38 to 41 seconds, quickly contracting, and then more slowly dilating again.

The observations of Cohn (k), published about a year later than those of Mr. Busk, but independent of them, discovered similar phenomena in Gonium pectorale and in Chlamydomonas, the vacuoles, like water-vesicles, contracting regularly at intervals of forty to forty-five seconds. The contractions and the dilatations occupy equal periods, as do those of our own heart-ventricles; and in Gonium he has found this singular fact, that when, as commonly happens, two vacuoles exist in one cell, their rhythms are alike and exactly alternate, each contracting once in about forty seconds, and the contraction of each occurring at exactly mid-distance between two successive contractions of the other.

Here, then, we have examples of perfect, and even of compound, rhythmic contractions in vegetable organisms, in which we can have no suspicion of muscular structure, or nervous, or of stimulus (in any reasonable sense of the term), or, in short, of any one of those things which we are prone to regard as the mainsprings of rhythmic action in the heart.

The case of ciliary movements is as simple; the cilia having a perfect rhythm, so that their alternate and opposite movements are of definitely proportioned length; and that, where many move on the same surface, they all keep time precisely, by moving, not all simultaneously, but in time-regulated succession. Here, too, we have no trace of muscular or nervous structure, or of stimulus; yet there is a perfect rhythm in which even myriads of cilia keep time, although there is no evident connecting medium between them, nor, generally, any continuity of structure.

I cite these two instances—the ciliary motion and the contraction of the vacuoles or vesicles in the minute Algæ—as the simplest examples of rhythmic movements—simplest in regard of method, of structure, of apparent uniformity of circumstances, and of spontaneity. And if I were to enumerate all the instances of rhythmic motion that I can find, other than those of hearts, their variety would suffice to show, that for the explanation of rhythm, we must find something much wider than any peculiarity in the structure or nerve-supply of hearts. The time-regulated movements of Oscillatoriæ and their congeners; those of the lateral leaflets in Desmodium gyrans, and of the labellum in Megaclinium falcatum (l); the movements of spermatozoa and of their analogues in the vegetable kingdom; the constant rhythm of the nutritive yelk in the ovum of the Pike (m); the movements of the pulmograde Acalephæ; the rhythmic actions of the larger veins in the bat's wing:—all these make a heterogeneous list, if we look to structure or to office; their only apparent mark of resemblance is, that they are all rhythmical in action, *i. e.* they all observe a rule of time in the manner of their action, a rule in which there is a regulation not only of the times at which successive and alternate actions follow one another, but of those during which each action is continuous.

But there is another thing common to all rhythmically acting organs: they are all the seats of nutritive processes; and I believe that their movements are rhythmical, because their nutrition is so; and rhythmic nutrition is, I believe, only a peculiar instance, or method of manifestation, of a general law of Time as concerned in all organic processes. In other words, I believe that rhythmic motion is an issue of rhythmic nutrition, *i. e.* of a method of nutrition, in which the acting parts are at certain periods raised, with time-regulated progress, to a state of instability of composition, from which they then decline, and in their decline may change their shape, and move with a definite velocity, or (as nervous centres) may discharge nerve-force.

Regarded as phenomena of nutrition, the chief things in which rhythmic changes, whether attended with motion or not, may seem strange, are (1), that they are not continuous, but interrupted, and, as it were, alternating between action and inaction, or between progress and regress; and (2) that they are very minutely observant of time. But, in both these regards, they are examples of very general laws of organic processes; alternations of action and of rest, or of opposite actions, being common phenomena of organic life, and all organic processes being regulated with exact observance of time.

In all organic processes, laws of time are observed as exactly as are those concerning weight, and size, and composition.

In the largest view, in that cycle of mutations, according to a parental type, in which the life of every individual (at least among the higher organisms) consists, the successive changes are accomplished with the same exact regard to time as to every other particular. The offspring at each period of its course attains the same condition as the parent at the corresponding period had attained; the rules of weight, of shape, of composition, and of time, are all alike observed in the reproduction of the parent in the offspring.

And, within this view, we may observe how all the part or even all the elemental structures, of any organism, kee time in its development. Prematurity is, probably, even mor rare than is preponderance, among them,

And so to natural death; for, rare as it may be, there is a death even among men, in which, with uniform and synchronous decay, all parts arrive at the same time at the stage of incapacity for work.

It is the same everywhere. How evident is the observance of a law of time in the organic phenomena of the seasons! or, with more minute regulation, in those of sleeping and waking, not only among animals, but, much more exactly, in the leaves and flowers of plants, or in their unfoldings, or in the movements of stamina, the dehiscence of fruits, and the like, whether in succession or coincidently! In all of these, occurring, as they do, precisely when they are necessary for the welfare of the individual or the race, we may observe a time-regulation of the organic processes, which, for its precision, passes calculation. For though many of these processes may be very dependent, as to the variations of their rate, upon external conditions, and especially upon variations of light and heat, yet their mean or proper rate is not explained by these conditions, nor is wholly due to them; a distinct law of periodicity, various according to the species, is observed in all; and even what the external conditions do effect, they effect by their influence on processes of cell-life, which they can alter in respect of time in only the same measure, and with the same limitations, as they can alter them in respect of quantity, or any other character.

Instances of the time-regulation of processes in the animal economy are as evident: witness the returns of thirst and hunger, the regulated times for digestion, the rates of excretions, the daily risings and fallings of temperature, the times for the development of ova, for the growth and development of the uterus, and of all the parts appertaining to gestation and to lactation.

Equally is time observed in processes of disease. It is most evident, in one sense, in all intermittent and other periodic affections; but, in another way, as evident in eruptive fevers. In small-pox, for example, not only is the time set in which the complicated process of eruption will be achieved; but, though every pustule is, in its appearance, independent of the rest, yet all are together in regard of time, because there is

(i) Transactions of the MicroscopicalSociety of London, May 21, 1852.
(k) Untersuchungen über die Entwickelungsgeschichte der mikroskopischen Algen und Pilze. Breslau, 4to, 1854.
(l) Lindley; and Morren in the "Annales des Sciences Naturelles."
(m) Reichert in Müller's "Archiv," 1857, p. 46.

the same time-regulation for all. And so, when we watch the progress and the natural remedy of some spreading disease, such as erysipelas or gangrene, the observance of time is, in the whole process, as exact as that of quantity, or any other characteristic of the disease.

I dwell the more on these facts, because, familiar as they are to all, their importance, as indicating a general law of organic life, seems to be overlooked, and especially their bearing on the explanation of the rhythmic action of the heart has not been duly considered. For not only are many of the processes to which I have referred instances of regular and time ordered alternations of action, and therefore, in the strict sense, rhythmical; but they are all instances of that exact observance of minute periods of time, which, on a superficial view, appears as the most singular and inexplicable character of the rhythm of a heart. For, in all these cases, the final correctness of the result of the organic process, the punctuality of its event, is proof that it was exactly timed in every stage; that it was, throughout, regulated to the second; just as the action of the heart is; or as the accuracy of a chronometer, at a year's end, is proof, or very nearly proof, that it kept right time in every hour and every second of the year. In the maturation or the development of an ovum, for example, or in the ripening of seeds, a law of time, various in different species, is observed by all, and their punctuality in arriving at the climax of maturity, after many hours or days or months of progressive change, is evidence that they were chronometric in all their course thitherward. And where many such processes are concurrent, though severally independent, as in the contemporary maturation of all the ovules of an ovary, we may say that their concurrence is like that of many exact chronometers; and their final punctuality, like that of the chronometers, would prove that, in each unit of time, each did a certain and proportionate amount of work.

In all organic processes, then, there is as minute a regulation of time as there is of quantity, or shape, or quality of matter. Timework is not a singular characteristic of quickly rhythmic organs; it is a rule of life; and its rate in each organism is neither determined, nor beyond certain limits alterable, by external conditions, or by any appreciable qualities of weight or composition (as are the time-relations of inorganic masses); but is determined by properties inherited, and inherent in the very nature of the organism, and is least alterable by external conditions in the highest organisms.

But though the general law of chronometric nutrition (if I may so call it) may be evident, yet it may be objected by some, that it is proved only for such nutritive processes as are long-continuous and cumulative; and that it is an unwarranted assumption to think of a rhythmical or frequently interrupted nutrition. To which objection the answer may be, that whether we regard a rhythmic nutrition as the cause of rhythmic motion or not, we are obliged to hold such a method of nutrition as a fact. For we can be nearly certain that in the heart, as in other muscular, or any other parts, the successive impairments and renovations of composition, which constitute the process of nutritive maintenance, are severally accomplished during the successive periods of action and of repose, all exercise being attended with impairment of composition, such as can be repaired only during repose. Now the only repose of the heart's muscles, and I suppose of its nervous system also, is in the brief intervals between their succesive actions; and in these intervals, and, therefore, with a rhythmic nutrition coordinate with its rhythmical action, the heart-structures must recover from the changes suffered in their actions. Whether, then, as a cause, or as a consequence, where there is rhythmical action there must be corresponding rhythmical waste and repair; for we cannot reasonably suppose that the heart, or any other similarly acting organ, has, as a special prerogative, an exemption from the law of impairment in or by exercise: such an exemption is, indeed, inconceivable.

Now if rhythmic nutrition be thus proved as a necessary attendant of rhythmic action, it must be regarded as the cause, not the consequence, of the action; for in all cases nutrition has precedence of other actions in organized bodies; and the time-regulation of nutrition is a general and principal fact, and is a cause, not a consequence, of many phenomena which we trace in other organs than the heart, and many of which are attended with time-ordered movements.

I suspect that, to many, that which will seem most difficult of acceptance, is the belief that in so quick rhythmic actions as that of the mammalian heart (for example), or that of cilia, there can be a corresponding quickness of alternation of the progressive and retrogressive changes which essentially constitute nutrition. It must be admitted that, when we watch these movements, they appear, at first sight, very unlike anything that can result from nutritive changes, in which we are apt to think of a certain deliberation and quietness. But all rhythmic movements are not thus rapid; and when we watch the actions of a heart reduced to move only once in two or three minutes (as a frog's may be by ligature around the venous sinus), the appearance is like nothing more than it is like that of a process of nutritive changes, in which the structures gradually reach a climax of instability, and then quickly change. Whatever value then there may be in the appearance of a rhythmic action as an indication of its cause, it might be adduced on either side of the inquiry.

But let me add, that the nutritive changes to which I here refer, do not involve the supposition of any rapidly successive making and unmaking of the structures of the rhythmic organ, whether the heart or any other. We have probably held too much of the making and unmaking of elemental parts as essential to their maintenance by nutrition. In the modelling of parts during development and growth, such complete changes probably occur; but in mere maintenance of parts there is no evidence of their frequent or ordinary occurrence, and to assume it is contrary to the fact, that we rarely find any rudimental structures among the perfect ones. In the most active muscles of the adult, for example, I doubt whether a rudimental or developing fibre could be found; we have sufficient chemical evidence of a constant change of material in them, but no evidence of an equal or parallel change of structure. And so in the blood; the change of material is very rapid, but the change of structures, which we may in some measure estimate by the proportion of white or rudimental blood-cells, is probably slow(n). And again, in the secreting glands, excepting those of the skin and the breasts, we have no evidence, and, I think, no sufficient reason to believe, that in all cases the gland-cell-walls dissolve or burst in the act of secretion, so as to need the entire new formation of fresh cells. For we find in most of the active glands no considerable number of either rudimental or degenerate cells; and the observations of Ludwig and Rahn on the secretion of saliva indicate, as many other facts do, that in ordinary secretion (which is the ordinary nutrition of glands) the cell-contents, gradually transformed, flow out through the persistent cell-walls.

Nutritive maintenance, then, probably requires nothing more than molecular substitution. Atoms even of the refuse substance may be passing out, and atoms of the renewing substance passing into places among the structures of a comparatively persistent framework. Cell-walls or their analogues may be long-lived, while their contents are undergoing continual mutation. Such a process of molecular interchange and passage is, indeed, visible in the absorption of oil through the epithelial cells and villi of the intestines; and this is probably only a coarse example of the ordinary manner in which cells change their contents in the nutritive processes. Changes like these may well consist with the quickest rhythmic action.

I would thus, then, conclude as to the most probable explanation of the rhythmic action of the heart:—

1. In the Vertebrata it is due to the time-regulated discharges of nerve-force in certain of the ganglia in and near the substance of the heart, by which discharges the muscular walls are excited to contraction.

2. In Invertebrata, the corresponding pulsatile movements of hearts or vessels are probably independent of nerve-force.

3. The time-regulated rhythmic action, whether of the nervous centres or of the independent contractile walls, is due to their nutrition being rhythmic, *i. e.* to their being, in certain periods, by nutritive changes of composition, raised, with regulated progress, to a state of instability of composition, in their decline from which they discharge nerve-force, or change their shape, contracting.

4. The muscular substance of the heart in the Vertebrata, governed in its rhythmic action by appropriate nervous centres, has a rhythmic nutrition of its own, corresponding and

(n) The very small quantity of iron, in proportion to the quantities of the other constituents of the blood-cells, found in the excretions, is another indication of the comparatively slow waste of the red blood-cells, and may suggest, besides, that in nutritive maintenance there is not an equal mutation of all the component substances of a structure.

coordinate with theirs; the impairments of its structure during action being repaired in repose.

5. Rhythmic nutrition is a process in accordance with the general laws of organic life, very many organic processes being composed of timely-regulated alternate action and inaction, or alternate opposite actions, *i. e.* being rhythmical, with larger or shorter units of time; and all organic processes being chronometric, *i. e.* ordered according to laws of time as exact, and only as much influenced by external conditions, as are those relating to weight, size, shape, and composition.

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No. XXXI.

ON THE SECONDARY AFFECTIONS RESULTING FROM GUNSHOT WOUNDS.

By JEFFREY A. MARSTON, M.D.

Staff-Assistant Surgeon.

It is proposed here to place before the Medical public a succinct statement of the general characteristic principles of treatment, and the result of observations made upon the numerous invalids admitted into Malta Hospital during the late war, from December, 1854, to February, 1856; and in doing this we shall select cases that seem best calculated to afford a fair idea of the class of injuries or diseases to which they refer, instead of relating numerous detailed cases. From the period which must have elapsed from the first receipt of the injuries to the landing of the invalids at Malta, these cases will tend to illustrate the kind of affections most likely to follow from such injuries.

Sloughing Phagedæna.—Hospital gangrene, fortunately, never prevailed at this station in an epidemic form, and hence those cases which arise apparently from infection, and presenting constitutional symptoms primarily or contemporaneously with the local affection, must be more or less excluded.

Upwards of seventy cases have been admitted into the Military Hospital here with this complication, particularly during the winter and spring of 1854—55, and by far the larger number dated the commencement of the disease on shipboard, during the transit from Balaklava or Scutari to this station. Careful inquiries were made into the causes, and the results may be reduced to the following, which may be classed under two heads:—

I. Those occurring on ship-board.

Local irritation of wounds by motion, etc., inseparable from such a situation; the more or less close proximity of the wounded; retention of discharges from insufficient dressing; the use, in many instances, of the same water for dressing many wounds; a diet composed altogether, or in great part, of salt rations.

II. Those occurring in Hospital.

Cachectic habit of body, original, or acquired by previous hardship and disease; the occurrence of some constitutional disorder, secondarily affecting the condition of the wounds; meteoric and telluric causes, etc., as the prevalence of sirocco winds, etc.

Of course one or more of these may have been combined, but we conceive that any one of them would be sufficient. As a rule, soldiers under any circumstances are bad sailors, but wounded ones are particularly so, and the sufferings of the men must have been very great in many cases, particularly during protracted voyages in sailing vessels, which after the battles of Alma and Inkermann were far too frequently used; but subsequently these things became much improved, and with the happiest effects. All the cases stated that at the date of their embarkation their wounds were doing well, and from observation we find that the date of commencement of sloughing in all cases was, on an average, the 8th, 10th, or 14th days, an ample time, manifestly, for the production of this affection from any one of the causes we have enumerated.

Private T. S., Grenadier Guards, aged twenty-four, a very intelligent man, sustained a gunshot injury of left arm at Alma, and comminuted fracture of the radius. Was admitted into Scutari, when some detached pieces of bone were removed by incision, and the wound nearly healed, when he embarked on 1st December on board the Cambria, and landed here on the 12th. During the voyage the wound inflamed, and became very painful, and discharged much, which he attributed to the "knocking about," and salt rations on shipboard. At the time of admission the arm was enormously swollen, the track of the exit of ball had sloughed, and there was a large amount of offensive sanguineo-purulent discharge. The poultice which had been applied was continued for the night, and an opiate given. During the succeeding two days the sloughing was very great, the finger could be passed to some depth upwards and around the sloughs, and shreds of sloughy areolar tissue easily detached; the surrounding circumference had a boggy, undermined feel; and at last a phagedænic ulcer occupied the greater part of the outer aspect of forearm, of oval form, and at least eight inches in its long diameter. The exterior muscles were perfectly exposed, and could be separated from one another, as easily as in a dissection, by the finger, which passed down between them to the periosteum; the intermuscular and areolar tissue had a dirty greyish brown succulent character, and came away in long shreds. A gangrenous exudation covered the surface of the sore; the edges were elevated, and undermined to a great extent, so as to be capable of being lifted off the inclosed parts. They were, beside, hard and gristly to the touch, and of a brownish colour. The fractured radius (lower third) was much thickened from necrosis, and consolidation around the dislocated fragments. He was suffering from extreme pain in the seat of the wound, with nocturnal perspiration, slight diarrhœa, pyrexia, with a weak, jerky pulse of 104. The undermined edges were removed by a bistoury, and the surface of the sore well cleansed and dried, and strong nitric acid applied, until it took on a more healthy character. Opium in sustained doses was given, and a generous, but light diet. Subsequently, warm turpentine and charcoal formed the basis of treatment, with water-dressing. As it was evident that there had been necrosis going on, and a probe touched some pieces of bone, these were subsequently removed by incision. The inclosing new bone was easily divided by a small saw, being soft, resembling at this comparatively early period of its development (as Mr. Guthrie remarks) Parmesan cheese mixed with lime. The operation was rendered rather protracted, from the fact of each detached piece of bone (as is the case in gunshot injuries) becoming the subject of necrosis, and a centre round which surrounding ossification had supervened. This man subsequently recovered, and was invalided to England, with the wound healthily granulating, and nearly cicatrised.

Private H. E., Coldstream Guards, aged 33, a stout healthy man, sustained rifle-ball injury at Inkermann; the ball entering in front of sternum, crossing the left axilla, and making its exit at the upper and back part of the left upper arm. He left Scutari with the wounds nearly healed. During the voyage, similar symptoms supervened to those of the last case, sloughing taking place in the track of the ball. When admitted there was a large ulcerated cavity in the axilla, which was crammed with dry lint, and fastened by a tight bandage, on account of extensive hæmorrhage, which had taken place from the bottom of the wound. Upon removing the lint, the fingers might be passed upwards into the sloughy cavity of the axilla, and the artery plainly felt pulsating; discharge was easily forced along the track of the sinus left by the ball, and out at a large fistulous exit opening. The sinus was laid open throughout its extent, to admit of perfect discharge of matter, which was pent up by the inflamed walls, and owing to the proximity of the artery no nitric acid was used, but simply water dressing; precautions being taken, at the same time, about the hæmorrhage, which occurred to the extent of some ounces the following morning, but had ceased upon our arrival. On the same night hæmorrhage again supervened, and from the quantity it was feared that the artery had sloughed or ulcerated. Considering the great difficulties which would attend the discovery of the artery in a slough, and the probability of the impracticability of applying any ligature to it when found, it was thought, at first, better to tie the axillary through the pectoral muscle; fortunately, however, we could not determine whether, after all, the main artery might not be unimplicated, so we determined to cut through the border of the

greater pectoral muscle, and explore, as a primary operation. Upon doing this, it was found that the whole hæmorrhage had occurred from a branch, which we conceived to be subscapular, and it was ligatured above and below the appearance of injury, and very wide of it. The jets were the guide in this case. Considering that so much blood may proceed from a small artery, and, under peculiar circumstances, so little from a large one, it appears to us a good rule always to explore, if at all practicable, the seat of hæmorrhage first. By constant sponging, and frequent repetition of water dressing, the sloughing ceased, and the whole granulated, and he was invalided to England, doing well.

The following case is interesting, on account of the great exposure of bone, and subsequent recovery, without any necrosis :—

Private T. C., 44th Regiment, aged 27, in going from Varna to the Crimea, fell down the main hatchway of a vessel, and sustained a contused wound of left leg, from which he nearly recovered in Scutari, and embarked for England, but was landed here on account of sloughing having attacked the wound. There was a large oval ulcer situated upon the left leg, reaching from within three inches of the ankle to near the knee, chiefly over the surface of tibia. From this an immense slough separated, the edges becoming more healthy, but the base continued to slough for two or three days, until the inner and front surface of the tibia became completely exposed, and void of periosteum; the finger might be run along it, and it certainly was bone, without any periosteal covering whatever. It was daily expected that extensive exfoliations would follow, but eventually granulations sprang up around it, and the bone lost its white appearance, and became gradually more vascular, and ultimately the whole healed without any necrosis or exfoliation. The treatment in this case was the application of nitric acid, the bone being protected by smearing it with oil; liberal diet; and the use of tinct. ferri muriatis in doses mx. three times a-day.

In another ward, at the same time as the last case, was a private (whose name and regiment we have forgotten), who had sustained a round-shot contusion of the left leg, with probable injury of the tibia. After the formation of an abscess sinuses existed, through which the probe touched denuded bone. The character of the wound altered during the prevalence of sirocco winds here, and suddenly took on sloughing, by which a large portion of the tibia was exposed, and ultimately a very large portion of the shaft (nearly 10 inches) necrosed, and was easily removed by a straight incision. After an attack of erysipelas, attended and complicated with great venous hæmorrhage; this man did well, and was invalided to England.

Private W.R., aged 20, Scots Fusileer Guards, sustained a cannister shot wound of left ankle at Inkermann, by which the external malleolus was fractured and comminuted. At Scutari some pieces of clothing, with part of shot and loose portions of bone, were removed. When he embarked, the wound had nearly healed, but during the voyage (on the 9th day) it became the subject of sloughing. When admitted in January at this station Hospital, there was a large ulcer extending from the front of ankle to the posterior part of tibia; the edges of which were indurated, inflamed, and undermined, and discharging a large amount of fetid pus. The tendo-Achilles was quite bare, and sloughing; rotted shreds of the tendon could be removed without much pain. The posterior projection of the os calcis was exposed, and superficial necrosis had commenced. There were three sinuses communicating with the large ulcer, occupying various sites near the ankle, chiefly on the fibular side. The walls of the ulcers were implicated in the sloughing process, and were much inflamed and indurated. The greater part of the wound was covered with a dirty, yellowish-grey, and very tenacious exudation, which was extremely common to all the phagedænic sores. The peronei tendons were exposed by sloughing around one of the sinuses. The patient had great pain in the wound of a stinging character, but manipulation was comparatively unattended by any pain. His general health was bad, and he suffered from much fever. The sinuses were laid open, and the indurated serrated edges removed as far as practicable, after which nitric acid was applied; and five grains of pil. saponis c. opio given night and morning, with milk diet; afterwards charcoal, turpentine, and water dressing with bark powder, were substituted during the succeeding stages of the disease. The case was tedious from the necrosis of the os calcis. The sequestrum was removed when loose, by a T-shaped incision over the heel, and after a slight recession of the sloughing, from a too liberal diet, apparently, he recovered exceedingly well, save some contraction remaining, and consequent loss of motion, part of which appeared due to the long-continued position, and part to the contraction of the cicatrices and tendons.

The effect of salt rations in inducing a scorbutic diathesis was well marked in the next case.

Private E. P., aged 30, Coldstream Guards, was admitted into Hospital on December 21, 1854, with a batch of wounded invalids (many of whom were the subjects of sloughing), with two symmetrically placed ulcers of large size upon the front surface of either tibia. They first occurred on shipboard. He was pale and anæmic; the conjunctivæ were both pale, and had a yellowish tinge; the lips and gums were likewise anæmic; the latter were spongy, and bled frequently. He suffered from debility, palpitation, and dyspnœa, and had passed some blood by stool. The treatment in this case was directed to the removal of the scorbutic diathesis, and consisted of salts of potash with calumbo, liberal diet, with vegetables and porter, water dressing being merely applied to the ulcers, of all which he subsequently completely and quickly recovered.

As all the cases bear, more or less, a very strong resemblance to one another, we shall add the predominating and average appearances presented, making comments afterwards upon them.

1. An indurated, serrated, and undermined condition of the edges was generally present. The walls of the sinuses, etc., became so thickened, indurated, and ensanguined, from infiltration of effused lymph, that they might often be incised without the loss of blood or the occasion of pain; at the same time the resistance to the knife resembled that of brawn or leather.

2. The areolar tissue, as is always the case, suffered most and earliest, accounting for the detached state of the integument around.

3. Although it was the most common thing for a large artery to be completely exposed by phagedænic sloughing, it was the most rare thing for its coats to become implicated in the morbid process. Of more than 70 cases altogether, in many of which an artery could be plainly felt and seen pulsating at the base of a wound or ulcer, only 4 were attended with actual hæmorrhage, and this occurred from the smaller vessels, as a rule.

4. In some cases the pain was very great indeed; in others, trifling; in very many, local sensibility was so much depressed in and around the disease, that manipulation was frequently comparatively painless.

5. A very tenacious, tawny exudation of degenerate lymph covered the surface of the sloughing or ulcerating wounds.

6. Constitutional symptoms were generally present, and in the cases we saw, those followed the local change, unless that were produced by some obvious constitutional cause.

7. The fever attending these cases bore uniformly the same type, and differed from simple hectic, having more the appearance of being due to a toxæmic condition of the blood, similar but greater than the pyrexia following a slight dissection wound, being characterised by a yellow tinge of the skin, much and fœtid nocturnal perspirations, occasional diarrhœa, a red and glazed tongue, anorexia, a pulse quick and feeble, sometimes vomiting, frequently tenderness along the course of the large intestines, and at the lower end of them.

8. That these symptoms often had the appearance of being due to an absorption into the system of the excretions from the wound itself.

9. That in most cases beneficial change in the local disease had a remarkably salutary effect upon the constitutional symptoms.

With regard to observation No. 5, we conceive that the direct experiments of Ollivier, Blackadder, and others, have determined for ever the question of the contagiousness of the disease in the affirmative. We experimented, however, upon artificial wounds produced in six rabbits, by placing and confining upon the raw surfaces of these wounds, discharges from sloughing phagedænic sores, and in five cases these artificial wounds took on an unhealthy and phagedænic appearance. We had no cases arising in Hospital from this source, as every precaution was used to prevent the possibility of its occurrence. With regard to observations Nos. 7 and 8, we

may mention the following grounds for those statements. In some of Blackadder's cases, in which arsenical cauterants were applied, symptoms of poisoning by arsenic ensued, evidently from absorption of the mineral into the system. We have never seen cases in which the constitutional symptoms preceded the local change, but many in which they followed it; and provided that constitutional symptoms of the nature described were present, you had no guarantee that the sloughing would be quickly arrested; nay, if a stump appeared healthy, after the employment of nitric acid and separation of the sloughs, if these symptoms developed themselves the appearance of the wound again became phagedænic. In two or three out of many such cases this was very obvious.

Private R. D., 1st Battalion Royals, suffered amputation of lower third of left thigh, on 7th June, 1855. The stump had nearly healed before embarkation; but during the voyage his report stated that he had delirium two days before admission into the Malta Hospital, apparently of a traumatic kind. Admitted 28th July following, from a transport sailing vessel, with slight sloughing at the inner angle of the flaps, which otherwise had as nearly as possible cicatrised. To this nitric acid was applied, and the surface left, after detachment of the slough, granulating healthily, when it began again to slough without any obvious cause, save that he had a day or two prior exhibited many of the constitutional symptoms enumerated. After an attack of continued vomiting, he suffered from bronchitis and symptoms of pleuritic effusion; at the same time his pulse became remarkably weak and quick, and he ultimately sank. Upon post-mortem examination, it was found that the sloughing was quite superficial, and still confined to the inner angle of line of union, which was perfect throughout the rest of the flaps. Upon slitting up the stump, however, some loose splinters of bone were found, bathed in pus, and in a state of necrosis. An internal sequestrum was removed. Some purulent matter exuded from the medullary canal, and the cancelli of the bone were occupied by degenerate and purulent effusion. There were also present marks of slight bronchitis, and effusion of above a pint of fluid, mixed with recent lymph, in the left pleural sac. The lower third of ileum and Peyer's patches were much injected; otherwise, nothing abnormal was found. It appeared that either the shell had produced in this man longitudinal fracture of the femur, or that the bone had been splintered in sawing during the operation. This appears, however, a case of osteo-phlebitis, which proved so fatal during the Schleswig-Holstein war.

Private P. B., 41st Regiment, admitted from the same ship at the same time, suffering apparently from a small sloughy entrance wound of left buttock, resulting from rifle-ball injury, on the 18th June last. The ball had lodged. Upon examination, the whole buttock, however, was found to be in a boggy, sloughy condition. The ball could not be discovered. The man exhibited no symptoms referrible to the bladder or rectum, and he subsequently died, after exhibiting febrile symptoms, attended with diarrhœa and local tenderness in the right iliac region. A post-mortem discovered that the ball, which was of large size, had traversed from the left side of buttock across the perinæum, close to and between the rectum and prostate, as far as the right spine of the ischium, where it appeared to have impinged upon the sciatic ligament, and fractured a small portion of the spine of the ischium, and then passed downwards, at nearly right angles to the upper third of the right thigh, where it was found in contact with the periosteum. It had not entered the pelvis, being separated from that cavity by a septum of pelvic fascia. The whole track was sloughy, and contained much coagulated blood, apparently from the gluteal vein; but no other injury whatever existed. With the exception of slight tumefaction of Peyer's glands, all the organs were healthy.

The last case we enumerate was a carefully watched one. Private J. K., aged nineteen, 49th Regiment, suffered amputation of right arm on the 21st of May, and at the same time sustained a shell-wound of inner aspect of left thigh at its upper third. Admitted into Malta Hospital from shipboard, with sloughing of this latter wound, the arm-stump being perfectly healed. This man was in capital health; and, after the application of nitric acid and separation of sloughs, the surface became quite healthy; but about the same period he exhibited symptoms of irritative fever, with slight jaundice, some vomiting, and much frontal headache. The sore almost immediately ceased to granulate, and became covered with a tawny, dry exudation, while its edges became inflamed and raised, and sloughing recommenced. No obvious cause could be traced for this. There was no typhoid fever existing in Hospital, nor erysipelas; the ward was beautifully ventilated and clean, and no patients were at the time suffering from phagedæna. Nitric acid and charcoal were applied locally, without any markedly beneficial result; but after the most copious deposit in the urine, the constitutional symptoms suddenly terminated, apparently critically, and the local affection almost immediately improved. The sloughing process had by this time become so rapid as to expose the coats of the femoral; but no lesion of the vessel occurred, and the man ultimately quite recovered.

These cases had to us the appearance of being produced in the manner mentioned, and the truth of the theory may be proved or not hereafter, but we could discover no cause whatever save this. It is true that in Malta wounds will frequently be prejudicially active by atmospheric causes, as we have often witnessed during the prevalence of sirocco winds; but in these instances, and in many others, these were not in operation.

With regard to the principles of treatment, they are so well understood now, and so generally admitted, that we can offer nothing new; however, the succeeding propositions include the system pursued by us with the greatest possible success:—

1. On the occurrence of sloughing, removal to an upstair and freely ventilated ward. Careful isolation, if possible, from other wounded men, and the use of fresh tow, in every case, to the exclusion of sponges, and the careful removal of all utensils used by sloughing patients from other invalids. We recommend this as absolutely necessary, for it does not appear to us by any means clear from endemics of this disease we witnessed in Glasgow and elsewhere, that an asthenic and unhealthy condition of wounds may result (as Dr. Simpson has hinted) from the instruments of the Surgeon, or the contact of discharges of this kind with unhealthy wounds, possibly even by the means of flies acting as the vehicles.

2. Opening pretty freely all sinuses, and in some cases removal of the edge of the ulcers; perfect cleansing and drying of the surface, and the free and full application of strong nitric acid (which is by far the most certain and useful of any remedy we possess) until the sloughing has ceased. The tumefied edges, when in the condition described, had better be at once destroyed, to whatever extent they exist, as the sloughing rarely ceases until these parts, infiltrated as they are by unhealthy effusion, become separated.

3. Poulticing during any stage is useless, and during some absolutely injurious. Water dressing is far lighter and better. During the detachment of the sloughs, and the succeeding phases of the disease, variety of application is beneficial. Among the most useful we may enumerate charcoal, turpentine, bark powder, or a mixture of charcoal and rhubarb. Carrot poultices are of no benefit, and often of trouble to procure.

4. Local treatment, exclusively, in many cases renders the cure protracted. Milk diet, with or without stimulants, as the case may need. When pain is the great concomitant, nothing does more good than opium, but when this is not a prominent symptom, it exerts no great benefit. The muriated tincture of iron did not, in our cases, appear to influence the condition of the wounds much, if at all. During the granulating stage, a moderate diet is frequently, though not by any means generally, required. The other treatment will be obviously suited to the peculiarities of the case itself.

ON FRACTURE OF THE HUMERUS FROM MUSCULAR ACTION.

By HENRY SMITH, F.R.C.S.
Surgeon to the Westminster General Dispensary.

I was requested, on the 31st of May, to see Mr. D., a gentleman, aged 20, who had received some serious injury to his right arm. On visiting him I found him lying in bed with his arm bandaged up to his side; there was immense swelling about the shoulder, the injury having been inflicted twenty hours previously. On undoing the bandage there was not any distortion or any shortening of the limb to be noticed. The patient was so exquisitely sensitive to pain, that it was impossible to ascertain the exact nature of the injury; he was, therefore, placed under the influence of chloroform. Notwithstand

ing the amount of swelling it was pretty clear that the head of the humerus was in the glenoid cavity, and on careful examination it was discovered that the shaft of the bone was broken at the surgical neck.

It appears that the patient, while walking by the side of the river Thames, took up a stone weighing about two ounces, and endeavoured to throw it across the river; he used an extraordinary amount of exertion, and just as he had his arm extended and was about to deliver the stone, the limb dropped and he became faint. He was soon seen by two Medical men, who were somewhat puzzled as to the exact nature of the injury. One of them thought that the head of the humerus was dislocated, and the other was of opinion that a fracture had taken place, but they could not quite determine which had occurred.

On making further inquiry I ascertained that this gentleman was in perfect health, was endowed with remarkable muscular power and agility, displayed in wrestling and rowing; had never shown any weakness in his osseous system; had never had syphilis, or suffered from pains in his limbs.

The limb was put up in the ordinary manner, and a good union has occurred.

I have not before met with a case so decidedly illustrating the fracture of a healthy long bone from the pure action of the muscles; but some time ago, when I was placed in a position to see a large number of fractures, two remarkable cases of a somewhat analogous nature fell to my care within two months. In the first, a man about 25, the son of a master bricklayer, came to me with a fracture of the middle of the shaft of the humerus, which happened while he was endeavouring to lift himself from the ground by grasping with his hand the top of a wall. Now, this patient told me that for some time previously he had suffered from what are termed rheumatic pains in his arm.

In the other case, the patient was a healthy gentleman, who had his right humerus broken in the following way:—He was attempting to force down the arm of another man, their hands being clasped and their elbows resting on the table. My patient, feeling that he was getting the better of his antagonist, made an extra effort, and in so doing his arm broke just above the elbow. Unfortunately the nature of the accident was mistaken, and three persons were pulling him about for half an hour before I saw him, to reduce a supposed dislocation of the elbow-joint. This patient was a perfectly healthy man of great muscular power. In both cases speedy and perfect bony union took place.

Fracture of the shaft of a bone from the action of the muscles in a healthy person must be considered to be a rare thing; and, indeed, it has been denied that such an accident is possible; and very recently I saw in a number of the *Union Médicale* that an instance of such an accident happening to a young man while using great exertion with his arm has been related with the view of proving its possibility. The most modern writers on Surgery, South, Fergusson, Miller, Pirrie, Erichsen, and Druitt, refer either not at all or but slightly to this phenomenon; and there is not a doubt that it is rare. My friend Mr. Bishop, who has made the diseases and accidents of the osseous system his particular study, informs me he has never met with such a case. It, therefore, must be regarded as a somewhat singular circumstance that three such cases should have fallen within my own limited experience. I do not mean to assert that in all these instances the bone was in a perfectly healthy state, because I had no means of ascertaining this beyond those offered by the general condition of the individuals; it is possible that some morbid process, tending to make the bones more brittle, had been going on in each of these persons for some time; but in two of these cases at least there was not any evidence of this. Should an opportunity occur of examining the bone after an accident of this nature, it would be extremely interesting to endeavour to ascertain by a microscopical investigation whether any morbid change had taken place in the osseous texture.

That such an accident will take place in the healthy humerus of a horse, however, is proved by a specimen in the museum of the College of Surgeons. This shows oblique fracture of bone just below the joint; the accident happened to a celebrated steeple-chaser in high condition, in the following manner:—While in full career he got one of his feet into a hole and fell, and in the violent struggles which he made with the opposite limb the action of the muscles snapped the bone. Mr. Quekett, who kindly referred me to this specimen, assures me that the tissue of this bone is in a perfectly healthy condition.

The fracture of the shaft of a bone from muscular action in elderly persons, or in those suffering from some well marked constitutional disorder, is an occurrence not unfamiliar to the Surgeons. An instance of the former occurred in the person of a respected member of one of our Profession, whose thigh was broken while he was turning in bed; and an example of the latter was seen some little time since in an elderly man lying in King's College Hospital with a pulsating tumour of the ilium; here the upper part of the thigh bone was broken by some slight exertion of the patient. There is no difficulty in understanding the cause of the fracture when the bony structure is in a very unhealthy condition, but when there is no evidence of any disease whatever, fracture of the shaft of a long bone must be looked upon as a most interesting and somewhat mysterious Surgical phenomenon.

Caroline-street, Bedford-square.

THE LONDON

PRACTICE OF MEDICINE AND SURGERY.

REPORT ON THE ENUCLEATION TREATMENT OF UTERINE FIBROUS TUMOURS.

We record in detail this week the particulars of an instructive case which we have once or twice briefly adverted to during the last month, in which the enucleation of a fibrous tumour of the uterus was attempted. It will be convenient also to place by its side the narrative of one of a similar character, treated about two years ago, but not hitherto published. Both were under the care of Mr. Baker Brown in St. Mary's Hospital, to whose courtesy we are indebted for their notes, as also, in each instance, for opportunities of seeing the patients. As far as we are aware, these constitute the only operations of their class which have been performed in the London Hospitals. A few others have, however, been treated either as out-patients in private practice or in provincial Hospitals, and a yet larger number on the continent and in America. As the subject is one of much interest, our readers may be glad to be enabled to take a *coup d'œil* survey of the whole series of extant facts in relation to it.

There is one consideration, in the examination of what may be called the statistics of such an operation as this, which must never be lost sight of, and that is, that although the name given may be the same, the operation itself is exceedingly different in different cases. Thus, although the gross results will, we fear, be shown to have been very unfavourable, it must not thence be hastily concluded that the proceedure ought to be deemed out of the pale of legitimate Surgery. Fibrous tumours of the uterus present, as is well known, all possible varieties as to their location, size, and condition in respect to the adjacent structure of the organ. They may be most closely united to the uterine walls in which they are imbedded, or connected with them most loosely in a sort of cyst; they may be deeply placed and high up, or they may protrude into the uterine cavity, or even have become of pedunculated and polypoid shape, and hang within easy reach; lastly, they may vary in size from a walnut to an adult head. It is manifest that to speak of their removal by enucleation as the same thing in all cases, and to count up our facts as if it were so, can only lead to conclusions of an absurdly unsatisfactory character. The problem before us is, then, not so much to ascertain whether or not it is a feasible operation as to try to discover for what cases it is adopted, what the risks are which attend it, how they are to be lessened, and in what class of cases the danger exceeds the chance of benefit. And here, in the very outset of the inquiry, we are forced to express our deep regret that, like some other bold operations, it has been practised in several instances by Surgeons who have endeavoured to place the Profession under obligations rather to their daring in performance than to their honesty in recording. There is every reason to fear that while the successful cases have been trumpeted forth, not a few of the opposite kind have been allowed quietly to sink into oblivion. Premising, therefore, that on this account the

real colouring of the picture ought to be even darker than we are about to make it, we will now proceed to the citation of individual cases, proposing, according to custom, to state the conclusions deducible therefrom at the end of the report.

ST. MARY'S HOSPITAL.

Case I. — LARGE FIBROUS TUMOURS OF THE UTERUS—ENUCLEATION—DEATH.

(Under the care of Mr. BAKER BROWN.)

[The narrative of this and the following case is from the notes taken by Mr. Brown's Clinical Clerks.]

S. T., admitted Sept. 18th, 1855, aged 33, married, mother of three children; the last was born eleven years since. She was taken, five years ago, with throbbing in the left side, and great heat in the abdomen, and piles. She occasionally felt a lump in the lower part of the abdomen, with intense heat, but for several weeks together this would disappear, and she would feel quite well. About a year ago she began to flood very largely; it would go on for three weeks, and then stop for a couple of days and begin again. About six months ago she perceived a tumour, at first in the right side, but afterwards moveable, at the lower part of the abdomen. In consequence of the immense loss of blood, she is now very anxious, weak, and low. Has been under treatment most of the time.

On examination, a fibrous tumour was found occupying the body of the uterus, and gradually forcing its way through the os; and in consequence of inflammation having been set up, it had become firmly adherent to the left anterior and left posterior inner surface of the uterus. The os was dilated about three-quarters the size of the palm of the hand. The finger could be easily passed up on the right side, but at the fundus and left side the adhesions were very firm.

When she came into the Hospital there was very great hæmorrhage, and she was ordered to take 15m acid sulph. dil. in compound infusion of roses frequently.

Sept. 26th.—Mr. Brown determined to remove the tumour if possible. He seized the protruding portion with the tiger forceps, and dragging it down as far as possible, dissected the tumour from the left side of the os and cervix, but was unable to get it far down; and as the adhesions appeared too firm to hope to remove them all, he passed a double twine ligature from right to left, and another from top to bottom, and tied the included portion similar to a nævus. When this was done, the portion so included was so small, that Mr. Brown determined to try and remove a few more of the adhesions, and so pass a ligature further up. Dragging down the tumour as far as he could, he introduced his hand into the uterus, and gradually one by one, with immense effort and perseverance, he got away what at first appeared to be the whole tumour, a body larger than the two fists; but on introducing the hand again, he found that there was another, which appeared nearly as large as the first, but the adhesions were not so firm. This was removed, as also was another smaller one, and then the uterus was found quite free and empty.

The operation lasted an hour and a half, and the weight of the substance removed was 4lb. ½oz. The patient was very low, but rapidly rallied after a little ammonia and brandy. She was ordered 2 grs. of opium immediately, and 1 gr. every four hours. Ice to suck continually.

9 p.m.—Complains of no pain; feels very comfortable; no hæmorrhage; slight thirst.

27th.—8·30 a.m.—Slept a little during the night; no pain; expresses herself as having passed a comfortable night; pulse good; skin moist; no fever.

4 p.m.—Had a slight amount of bleeding half an hour ago; is very comfortable now; to inject iced water into the vagina.

28th.—10·30 a.m.—Slept pretty well; feels comfortable; oozing very slight; fancied she was a little sore this morning in the lower part of abdomen, but has no pain of any sort now; tongue moist; action of skin good; pulse fair. To apply eight leeches to abdomen.

29th.—Tongue and skin moist; feels pretty well; a good night; about 3 a.m. this morning had a feeling of sickness, which still continues, but has not vomited much. To stop the pills, and take an effervescing draught occasionally.

30th.—Doing well; bowels moved last evening.

October 1.—Pulse good; skin cool; scarcely any pain; keeps the food and nourishment down now, and feels comfortable; she had an injection yesterday, after which the bowels comfortably acted, and she felt much better.

2nd.—Complains of pain in the left leg, which is swollen and hard; pulse not so good; extremities cold. ℞ Ammon. sesquicarb. gr. v.; tinct. aurant. mx.; m. camph. ʒj. M. 2dis horis sumend. c. pil. seq. ℞ Morph. acetat. gr. ¼; mic. panis, q. s. ut fit pil. Poppy fomentations to the leg. Fried sole. Wine increased to ʒix.

3rd.—Slept very little, but has no pain; pulse rather firmer and extremities warm; tongue moist but very tremulous; there are nervous twitchings of the face, with deep frequent sighs; the leg is still firm. To apply a flannel roller.

4th.—Slightly improved.

5th.—Ditto.

6th.—Feels better; pulse firmer; perspirations not quite so profuse; great thirst notwithstanding the clean tongue and moist mouth. To take two pints of milk daily, instead of the beef-tea.

7th.—*In statu quo.*

8th.—The extremities very cold; lips livid; respiration hurried; pulse feeble and rapid; she said she had felt very sinking all night, but according to the report of the sister of the ward she had taken her breakfast as usual, and appeared pretty well; a loud bruit heard with the first cardiac sound, much louder than the murmur which had obtained on previous days. 2 oz. of brandy in hot water was poured down her throat, and wine with ammonia and other stimulants given vigorously and freely; hot water tins applied to her feet and sides, and for a time she appeared somewhat revived, but she sank at 12·5 p.m.

Post-mortem Examination.—The lungs were free from all adhesion; the posterior and inferior lobes were œdematous, and much clear, bloodless fluid poured out from the cut surfaces; there was about four and a half ounces of serum in each pleura; the heart was distended on the left side, and not on the right; the left ventricle was enlarged and thickened; the aortic valves were converted by ossification into perfect pouches incapable of any action; the pouch of the aorta was enlarged; the heart weighed thirteen and a half ounces; the liver, large, pale, and ex-sanguined; kidneys healthy; no trace of peritonitis either recent or of old standing; the uterus was four times its normal size; the internal lining was superficially sloughy, with a mass of fibrous concretion adherent to its posterior wall; in the parietes of the fundus was a fibrous growth the size of a chestnut, pale, gritty, and intact from neighbouring changes; the left iliac vein, close to its source, was hard and distended with coagulum; an entire blocking up might be traced far down the leg, at the point where it becomes femoral a softening and breaking up of its coagulum had taken place for a space of two or three inches, and in this part the fibrine was particularly adherent to the inner coat of the vein; the rest of the coagulum in the vein was simply coagulated blood unaltered; the whole lining membrane was darkly stained and mottled.

Case 2.—FIBROUS TUMOUR OF THE UTERUS—ATTEMPTED ENUCLEATION—DEATH.

(Under the care of Mr. BAKER BROWN.)

E. M., admitted April 6, 1857, aged 31, married eight years, but has had no children. Had very good health until two years ago, when she was seized with pain and uneasiness at the lower part of the abdomen, accompanied with a feeling of fulness; she had sickness and heartburn in the morning. About eighteen months ago she found that her right side was larger than her left. The swelling continued gradually to increase and extend itself over the abdomen. For twelve months she has had a discharge, at first green, but afterwards florid blood, and frequently coming away in a rapid gush. The pain has also increased very much, and is situated chiefly across the loins and down the outside of the right thigh. The pain is much more severe on the right than on the left side of the abdomen. She is exceedingly anæmic and nervous. The tumour is equally diffused over the abdomen, and gives her the appearance of being in the seventh month of pregnancy. The outline of the uterus is equally as distant as though pregnant.

On examination per vaginam the os was found about the size of a crown piece, and on passing the fingers through the uterus was filled up with a large tumour of tolerably firm consistence. The sound being passed up was easily carried around the tumour, and by a little manipulation it appeared as though the tumour was only adherent to the surface of the uterus over a comparatively small space. It could be easily moved in the uterus, rolled round as it were, and the impression was that if the os could be enlarged and the tumour laid hold of that it would very easily be extracted.

April 15.—1. p.m.—She was placed under the influence of chloroform, and Mr. Brown divided the os uteri with a bistoury to the extent of an inch and a half on the left side, and half an inch on the right. He then quietly introduced his left hand, and broke down those adhesions which connected the tumour with the uterus on the anterior and left side of the uterus. After this he introduced his right hand and detached those on the right side. With strong vulsellum forceps he endeavoured to seize hold of the tumour, but the grasp was not strong enough. He then introduced a strong ligature deep into the substance, so as to be able firmly to draw it down, but the structure of the tumour broke down, and he could not succeed. Some craniotomy forceps were then tried, but with no better success. A large blunt hook was then introduced and fixed into the tumour, but it also broke down and allowed no force to be used. As the hæmorrhage had been very considerable, Mr. Brown thought it was better not to make any further attempts, but to trust to repeated doses of secale, producing contraction of the uterus and expulsion of the tumour, now that the adhesions were so much broken down. 2 grs. of opium were therefore given immediately.

2½ p.m.—Pulse 100; very weak and feeble; extremities cold; pupils dilated. To have 3 oz. of brandy immediately, and mist. vini gallici, ʒj. every hour.

3½ p.m.—Rather warmer and somewhat more rallied.

5 p.m.—Has been very sick for the last hour. To have—℞ Acid. hydrocy. (Scheele's), ♏ij.; tinct. opii, ♏vj.; mist. camph., ʒj. M. immediately, and repeat if necessary.

9 p.m.—Has lost about ʒviii. of blood since 5 p.m. Very faint and low, but no pain. Pulse, 120; very weak; some sickness, but not so much. Ice was applied over the tumour, and iced drinks given. She is rather warmer than she was.

16th.—8 a.m.—Slept some little, but was much disturbed by sickness; no pain; pulse 95, hardly to be felt at the wrist; pupils dilated; tongue flabby, white and moist: countenance very pale; rather warmer. The urine was drawn off with the catheter.

3 p.m.—Sickness very troublesome. Lemon ice.

8½ p.m.—Some pain over the tumour; is much weaker; pulse, 100, not to be felt at the wrist; sickness very urgent. ℞ Chlorof. ♏x.; mucil. ʒij.; aquæ, ʒj. M.—statim.

9½ p.m.—Died, perfectly exhausted.

THE METROPOLITAN FREE HOSPITAL.

LARGE RECURRENT FIBROID TUMOUR OF THE UTERUS—TWO ATTEMPTS AT ENUCLEATION—RECOVERY—THIRD RECURRENCE—DEATH.

(Under the care of Mr. HUTCHINSON.)

The subject of the following case was treated by the writer at her own home as an out-patient of the Hospital. She was a woman aged 38, who had formerly enjoyed excellent health, and in whom the symptoms of uterine disease had commenced by liability to floodings about two years before the first operation. In the early part of 1855, she consulted the writer on account of that symptom, stating also that she was losing flesh and strength. Some enlargement of the posterior wall of the uterus was discovered, and the suspicion of a fibrous tumour was excited. She returned to her home in Lincolnshire, and after having been under various Medical men for about a year, was again sent to town, in July, 1856. She was now exceedingly reduced and anæmic. The floodings had continued to recur, and brought her to such a state of debility that she could not leave her bed. On examination, the tumour was found to have grown most rapidly. A large mass filled the vagina and hung almost as low as the os externum, while the uterus was occupied by one of almost equal size; the two being connected by a peduncle which was about as thick as a wrist where it passed through the cervix. The uterus was easily felt in the abdomen, and was perhaps about as large as in the fifth month of pregnancy. It was evenly rounded, but was placed to the right of the median line, where it was somewhat fixed. The softish texture of the polypus, its extreme rapidity of growth, and the form it had assumed, made it seem improbable that it was of the fibrous kind. As, however, there was no ulceration either of the vagina or cervix uteri, nor any evidence of secondary cancerous growths, and as it was clear that if the patient were left death must soon ensue, an attempt at enucleation was determined upon.

On July 28 the first operation was performed. The patient being fully under the influence of chloroform, a persevering attempt was made to introduce the hand into the uterus by the side of the pedicle; such, however, was the rigidity of the parts that it was found impracticable. With large lithotomy forceps, a blunt hook, etc., it was next endeavoured to draw down the tumour, in the hope of effecting a partial inversion of the uterus, and being able either to place a ligature round the very base of the growth, or to separate it with the hand. The tumour, however, was too soft, and broke down in these attempts. Several portions, in size from a walnut to an orange, were taken away, and its whole structure much contused. After about half-an-hour's manipulation it was judged best to desist. The bleeding had been but inconsiderable; it sufficed, however, to reduce the patient exceedingly low. The vagina was plugged with sponge immediately afterwards, and a dose of opium given.

For two weeks following this attempted operation the woman was in a very critical state. She took but little food, the mouth became aphthous, and it appeared probable that she would sink. During this time the discharge was profuse, watery, and very offensive, and many portions of the tumour were discharged in a sloughy state. After a while the stage of convalescence became established, and she rapidly improved. Two months after the operation she was able to be up and about, and all indications of uterine disease had passed away. The most interesting feature in the case at this time was, that on most careful and repeated examination of the uterus it appeared that the tumour had been wholly got rid of. None whatever existed in the vagina, the os was of natural size, and the uterus itself did not appear to be enlarged.

The woman remained well for about four months, during which she was in very fair health, and able to walk long distances. At length, however, the floodings again occurred, and examination revealed the existence of a large growth within the uterus. As yet, the recurred tumour had not been extruded through the os. In the course of a few weeks the repeated and profuse bleedings had brought the patient into a state of bloodlessness and debility nearly similar to that prior to the first operation. She most willingly consented to a second trial, and advantage was taken of a day on which the os was widely dilated to again endeavour to effect manipular enucleation. On this occasion the uterus was about the size of an infant's head, was placed in the middle of the abdomen, and was freely movable. In the open os some lobules of the tumour were felt, but they did not protrude more than about an inch below its level. The operation was again performed under chloroform, the patient being placed on her back, and the hips drawn to the edge of the bed. The os uteri was dilated to a size which would have easily admitted a child's fist, and its lips were soft and flaccid. Steadying the uterus with the left hand, Mr. Hutchinson gently introduced the right hand, well oiled, into the vagina—a procedure which, on account of the narrowness of that passage, was not easily accomplished. The fingers, in conical form, were then pushed on into the uterus itself. As on the former occasion, the growth was found to have no attachments to the cervix, nor indeed to the anterior part of the body of the uterus, but appeared to grow by a broad base from the fundus and posterior surface. The hand was made in some sort to act as a scoop, and was turned round in the uterus so as to break up and detach the growth. The latter was much too soft in texture to admit of clean enucleation; a great quantity of fragments were, however, got away, and what remained in the uterus was in a thoroughly contused and lacerated state. The whole operation probably lasted half an hour, as there was much difficulty in moving the hand, owing to the tight grasp of the parts upon it. No instruments were employed. The quantity of blood lost was not large, and there did not appear any necessity for resort to plugging. After the hand had been

removed, several digital examinations of the vagina, &c., were made. To secure the efficient contraction of the uterus, and to prevent hæmorrhage, three or four full doses of ergot were given after the operation.

On the day following, although there had been no bleeding of moment, yet the patient was very much weaker. She continued exceedingly feeble for several days, during which the discharge was fetid, and contained numerous fragments of slough. On the fifth day a severe rigor occurred, and her aspect, tongue, etc., pretty exactly resembled those of pyæmia. The administration of turpentine in full doses was now commenced, and appeared to exert the most markedly beneficial influence. From this time her recovery was steady, although slow. In about a month or five weeks she was again able to leave her bed, and the uterine symptoms had ceased. There was now no discharge and no bleeding, whilst, on careful examination, the size of the organ could not be discovered as more than natural. Here, however, attention must be asked to an accident which had followed the operation, viz., sloughing of the vagina. For the first few days after it no examinations were made; and when, on the sixth, the finger was introduced, it was discovered that a large communication existed between the rectum and vagina. It extended longitudinally, from a little below the posterior lip of the uterus down to within a short distance of the upper edge of the sphincter, and was of considerable width. It was quite certain that no actual laceration took place during the introduction of the hand, as it could not have escaped observation at the time. The explanation seemed to be, that the stretching, etc., had injured the part past recovery; and that, owing no doubt in a great extent to the patient's very feeble condition, sloughing had afterwards resulted.

The interest of this case, as an example of the enucleation of an uterine tumour, ends at this point. We may state, however, that the patient again perfectly recovered, and for some months enjoyed fair health, and was able to go about as usual. Subsequently the tumour again recurred, and, after trial of several other measures of relief, the injection of solutions of chloride of zinc, the ligature of a large portion, etc., she ultimately sank under it. The autopsy confirmed the opinion which had been formed as to the nature of the growth. A large soft fibroid tumour sprung from the whole fundus, and part of the posterior surface of the body of the uterus. The uterine walls, at other parts much thickened, were thinned away where the tumour grew, evidently from its infiltration. It would have been absolutely impossible, even with the most careful dissection, to have separated the morbid growth from the healthy tissues. There was no other disease in the body. The recto-vaginal communication had contracted, until it had become a mere longitudinal slit of about an inch long. It should be stated that the patient had suffered remarkably little inconvenience from this opening. Excepting on two or three occasions, after taking aperient medicine, she had never noticed fæces to escape by the vagina. This was probably to be accounted for by the fact, that her bowels were always moderately constipated, the motions being habitually firm and well-moulded.

Any remarks upon the pathology of the tumour in this interesting case would be out of place here, as it has been already considered before the Pathological Society; and will be duly reported on in the forthcoming volume of Transactions. With regard to its surgery we may however ask attention to the circumstance, that as the tumour was much softer in structure than one of the ordinary fibrous class, so the attempts at enucleation did not involve so much of laceration of the uterine walls themselves, as could usually be the case with the latter. Still, however, the patient's condition during the week or two on each occasion following the attempts at enucleation was sufficiently alarming to exhibit in a strong light the danger attaching to these procedures. It is true that the patient recovered, but she had two very narrow escapes. The usefulness of turpentine in the condition of impending pyæmia was well shown on the second occasion, and there appeared every reason to think that the remedy saved her life. So also the operations must fairly have the credit of having protracted life to nearly a year longer than it would probably otherwise have been, the greater part of which was in every sense enjoyable existence. On each occasion interference was only resorted to when it appeared evident that the patient could not possibly survive many weeks.

(This Report to be concluded next week.)

HOSPITAL NOTES.

THE ÉCRASEUR.

Although still employed occasionally by some Surgeons, the écraseur appears to be rapidly falling into disuse in London. Though by no means warm admirers of the instrument, we almost fear that it is being discarded somewhat prematurely, the trial given having not been quite a fair one. From Paris we still hear reports of its very extensive employment, and of its being deemed one of the most valuable of modern improvements. That its use there has been too indiscriminate, and that its recommendation for some really absurd purposes has tended much to damage its English reputation, there can be no doubt. Still, however, we have the fact fairly proved, that without risking either sloughing of the wound, tetanus, or other ill consequence in a greater degree than when the knife is used, tumours, etc., of great vascularity may be removed without hæmorrhage. That there are cases in which the effecting of this is of the greatest importance, no Surgeon will doubt. In a certain number of selected instances, therefore, the écraseur may fairly be expected to enable us to remove tumours, etc., which otherwise it would be imprudent to meddle with. It may be interesting to observe that in Paris many Surgeons have discarded the chain altogether, and employ only a cord. The latter is believed to cut with less contusion than the chain. It should be a soft cord of strong hemp, and not nearly so tightly twisted as whipcord. An instrument with a screw is also very preferable to one with a lever handle. Strong wire has been used with advantage in America.

MODE OF APPLYING TRACTION IN CASES OF BROKEN LEG, ETC.

In some cases of fractured leg or thigh in children and others it is important not to make pressure on parts about the heel. Thus the secure adaptation of the splint and bandage becomes a matter of much difficulty. There is a plan to which our attention was recently directed by Dr. Sloane, of the Leicester Infirmary, by which this may be accomplished with great ease and efficiency. It consists in applying a very broad and long strip of plaster on both sides of the leg from a little below the knee on each, so that it crosses under the sole. Where it crosses the sole a loop of plaster is left to which a bandage may easily be attached, and thus the traction is made downward in a direct line with the axis of the limb, and without any risk of injurious pressure. Of course the splint should have, as all long splints ought to have, a cross bar at the bottom, to which to fix the bandage. If it has not, however, the attachment may be made to the end of the splint, though with much greater risk of twisting the limb.

POPLITEAL ANEURISM IN A WOMAN.

A case of popliteal aneurism is at present under treatment by the compression plan in Guy's Hospital. The patient is a woman. The infrequency of cases of this kind in women is generally acknowledged. One such was lately under Mr. Fergusson's care in King's College, and a second was under Mr. Prescott Hewett's care in St. George's some years ago. In the last the patient was cured by compression, and afterwards became a nurse in the Hospital. The Guy's case is under Mr. Hilton's care, and is doing well.

NEEDLE-HOOK FOR OPERATIONS FOR ARTIFICIAL PUPIL.

Mr. Bowman has recently employed with much seeming advantage in several cases, an instrument which he devised several years ago, and published an account of, but the use of which has been, we believe, as yet confined to himself. It consists of a needle-pointed hook, and enables the operator to enter the cornea, and drag out the iris with the same instrument, thus obviating the necessity for employing two. In cases in which the lens still exists, care must be taken to hold the instrument on the horizontal plane, as its needle point projects considerably beyond the hook, and in the attempt to seize the iris with the latter might possibly, if unduly depressed, wound the lens. These, however, constitute but a small proportion of those requiring operations of this kind; at least such has been the case at Moorfields recently, since the introduction (by Mr. Critchett) of extraction through a closed pupil. For making an artificial pupil after extraction, the needle hook is certainly admirably adapted, and could not possibly inflict injury. In Mr. Bowman's hand we have never seen any difficulty occur in the withdrawal of the hook; nor

could it, indeed, easily occur with due attention to the mode of managing it. One advantage which it possesses is in respect to the very small opening made, and the prevention of escape of the aqueous.

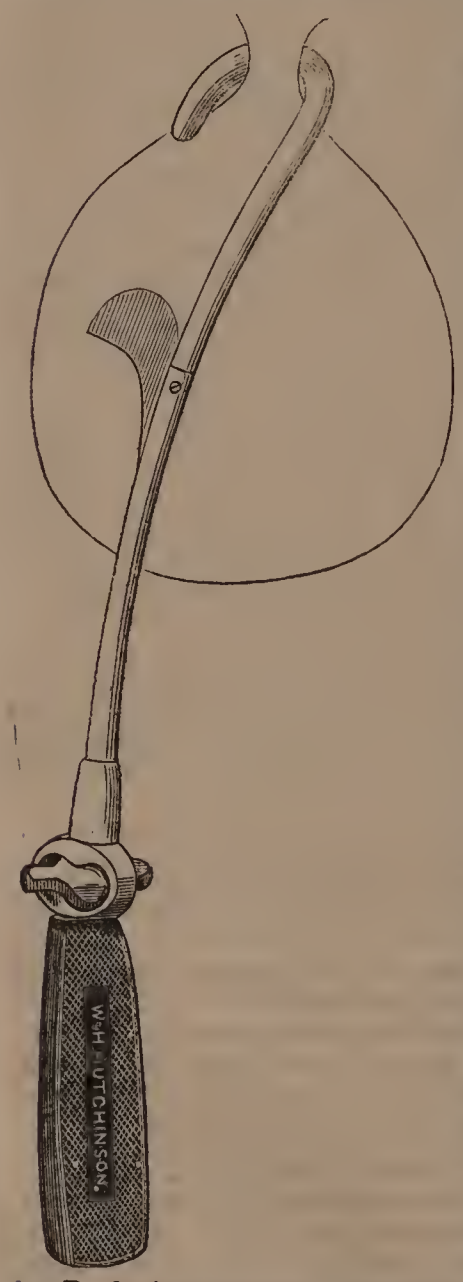
NEW INSTRUMENT.

A NEW INSTRUMENT FOR THE TREATMENT OF UTERINE POLYPI.

By JAMES H. AVELING, M.D., M.R.C.S. Eng.

This instrument consists of a curved stem, at one end of which is a hook. At the other end is a screw, which forces up a plate of metal into the concavity of the hook, in such a way as to *crush* through anything which may be placed in it. A handle fits on the lower end of the stem, the use of which is twofold. First, it enables the operator to have a firm grasp of the instrument while introducing it; secondly, it acts as a key, preventing the whole instrument from revolving with the screw while the plate of metal is being forced up.

The mode of operating with it is simple and easy. Having screwed the plate half-way down the stem, out of the way of the hook, and having fixed on the handle, grasp the instrument with the right hand; then, by the guidance of the left fore finger, glide it gradually into the vagina, and over the polypus, until the hook comes in contact with the peduncle. This may then be readily caught, and the operation concluded by screwing up the metal plate, holding the handle during this part of the proceeding with the left hand, and screwing with the right.



It is at the option of the operator whether he will use this instrument for the purpose of strangling the neck of the polypus, or for crushing it through at once. Those who prefer the use of the ligature will perhaps be glad to try this instrument, on account of the ease and safety with which it may be used, and the power it gives the operator over the duration of the operation. Those who advocate the immediate removal of uterine polypi by the knife may also be induced to use it from the bloodless character of the wound which it inflicts. Like the écraseur, it first condenses the tissues, and then divides them. The opinion of the Profession upon the proper mode of treating uterine polypi is just now somewhat divided. Those who use the ligature fear the fetid discharge caused by the putrefaction of the polypus; those who use the knife fear the hæmorrhage from the cut surface. Dr. Aveling thinks, that by the use of his instrument both these evils may be obviated. Time alone can prove the truth of his supposition.(a)

(a) The instrument may be obtained of W. and H. Hutchinson, surgical instrument makers, Norfolk-street, Sheffield.

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Medical Times & Gazette.

SATURDAY, JULY 25.

THE DRUGGISTS AND THE SALE OF POISONS.

The Druggists of the present day occupy a somewhat similar position to that filled by the Apothecaries before the passing of the Act of 1815. Previously to that period there was a class of persons who kept shops for the sale of drugs, and who, in addition to their retail practice, attended patients and performed the functions of the Physician. Some of these persons possessed a degree of Medical information, but the majority of them possessed none; yet a great number of the middle classes of society, and almost the whole of the lower, resorted to these Practitioners in cases of sickness. The only restriction against irregular practice, as far as we are aware, was in the city of London, where persons who kept shops for the sale of drugs were placed under the surveillance of the London Society of Apothecaries, which, however, possessed no authority beyond the limits of the city. At that period the class of Druggists, or, as they style themselves, Chemists and Druggists, was exceedingly limited, because, indeed, nearly all who chose made themselves Apothecaries, and attended upon the sick. But the Act of 1815 effected a total change in the aspect of the Profession; and although the language of that Act is expressly worded as applicable to persons keeping shops and preparing medicines, as well as attending upon the sick, yet, as is well known, the present Licentiates of the Society of Apothecaries have, for the most part, ignored the shop altogether, and have entered into a competition, and by no means an unsuccessful or an unprofitable one, with the Physicians.

Now the effect of shutting up the shops on the part of the Apothecaries has been to call into active existence the Chemists and Druggists, who, by the display of red and blue bottles in their windows, and perhaps by a red light on their doors, have led a great part of the public to believe that the *insignia* alluded to are the evidences of education, and that their possessors are competent not only to prepare but to prescribe medicines for the relief of disease. Hence the Druggist of the present day is not only required to sell medicines behind the counter, but he is appealed to in innumerable instances to give his opinion upon their mode of operation, and their applicability to particular cases. He has therefore become the rival of the General Practitioner, just as the Apothecary of the present day is the rival of the Physician. But there is this very wide distinction between the two cases; that whereas the Apothecary, or rather the General Practitioner, has achieved his present position by a progressive advancement in Medical and Chemical science, the Druggist, on the contrary, is nearly in the same condition as he was at the commencement of the nineteenth century.

In the pages of a Medical Journal it is unnecessary to expa-

tiate on the progress of modern chemistry; it is sufficient to state, that since the discovery of carbonic acid by Dr. Black, in 1757, and of oxygen by Priestley, in 1774, this science has made rapid and gigantic strides in every part of the civilised world; and from a few isolated, though striking experiments, has expanded into a tree of knowledge, embracing in its wide circumference the molecular phenomena of the earth, the air, and the waters,—the mysterious agencies of life in the bodies of animals and the tissues of plants,—and the mutual relations of medicinal, alimentary, and poisonous matters with the human organism. From the mineral and vegetable kingdoms the art of the Chemist has extracted potent concentrated essences, which may on the one hand antagonise disease, or, on the other, may, in the dose of a drop or a grain, snap at once the thread of life; and the educated Medical Practitioner, duly acquainted with the principles of this extraordinary and widely spread science, applies his knowledge to the subtile combination of medicinal elements which may oppose the equally or more subtile operations which originate disease in the human body. Now, speaking generally, and with special exclusion of many names of high eminence, it may be alleged that a large proportion of the so-called Chemists and Druggists have taken no part whatever in the progress of modern chemistry, and are utterly unacquainted with its first principles; yet such is the laxity of the law of this country, that these persons are allowed, without the slightest restriction, not only to take to themselves a title which does not belong to them, but to deal in drugs of terrific potency, of the very nature and doses of which they may be entirely ignorant. Nay, more, even the protection of mature age and common experience is not afforded to the public in the dispensing of medicines; but in the Druggists' shops raw lads, little boys, even women, are allowed to deal out death, either by selling poisons to any customer, or by making dangerous and fatal mistakes in the preparation of prescriptions.

It must not be forgotten that the Pharmaceutical Society, which has now been established for fifteen years, has made many praiseworthy efforts to improve the status of the Druggists, by offering to them the advantages of education, and the moral strength which is derived from the united exertions of numerous men in the same cause; still, this society can only be regarded as a voluntary Association for a good object, which cannot bind the majority of Druggists throughout the country; cannot compel the unwilling to enter into its ranks; and cannot oblige the refractory to submit to its wholesome discipline. In fact, the Druggists have no more status than the Arabs of the desert; not even an apprenticeship is necessary for the craft, far less anything like education; but any one, however ignorant, may establish himself at once behind a Druggist's counter, without any other preliminary operation than the deposit of a sum of money for the fixtures in the shop. If a man wishes to open a beershop or a public-house, he must formally apply to the magistrates for a licence; if another man wishes to sell tobacco or pepper, he must communicate with the Excise; but the Druggist, who is to wield the instruments of life or death, such as quinine, opium, prussic acid, strychnia, mercury, belladonna, and a host of other equally potent weapons, commences his career without interference from any one; nobody inquires about his qualifications, his antecedents, or his moral character; he has taken a shop, and the blue bottles and the hieroglyphics in the windows are the diplomas which are sold with the fixtures, and which confer upon him the right to practise. Like Minerva, he springs forth fully armed; wisdom and science come to him by intuition; and the public, finding him installed, and trusting to the efficiency of the British law, conceive that he has a legal right to the position which he occupies; and straightway he sells poisons, makes up prescriptions, and, when called upon, prescribes.

Such is the present position of the modern English Druggist; a position which we will venture to assert is unparalleled in any other country of the civilized globe. Yet this is the class of persons who raise a loud outcry against the attempt now being made to restrict the sale of poisons within definite limits, and to check, as far as possible, the wanton destruction of human life which has lately ensued from the reckless use of those deleterious agents. The profits arising from the sale of such substances must surely be quite trifling in comparison with the benefits the public will derive from a suppression of the traffic; and no other argument in favour of the existing state of things is worthy of a moment's consideration.

THE WEEK.

A fortnight ago we suggested that the appointment of a Royal Commission was the most desirable course to take in order to obtain a settlement of the question of Medical Reform. The Senate of the University of London have since adopted the same view, and have advocated it in a deputation to Lord Palmerston, who appears to be favourably disposed in the matter, though not as yet bound by any definite promise. We understand that several of the most influential representatives of the opposed University and Corporation parties in the Medical Reform movement, are in favour of this scheme of a Royal Commission. If it be composed of five or six able and impartial men of influence and high character, selected from different parties, and who have neither opposed nor supported former measures, and who would determine to do their duty both to the public and the Profession, we may hope for a Bill next session deserving of cordial support, and one which, with the assistance of Government, will be almost certain to pass through Parliament, and settle a question which has led for many years past to a vast and unnecessary expenditure of time and money. We trust that the appointment of such a Commission will be supported at the forthcoming meeting of the Association, indeed, that it will meet with the support of all parties. That case must be a bad one whose advocates refuse to submit to the arbitration of five or six honest sensible men.

Yellow fever has appeared with great severity in at least three steamers of the West Indian Mail Company. The island of St. Thomas appears to be the chief seat of the disease. The Orinoco left St. Thomas's on the 27th of June with a crew of 106, of whom 75 were attacked with fever, and 28 died before her arrival in England. Mr. Walter, the Surgeon, the only Medical man on board for this large crew and 168 passengers, is spoken of in the highest terms for his indefatigable exertions. All the passengers escaped. The Chaplain for this voyage, in a letter to the *Times*, says, "I speak in the highest terms of the fine young fellow who was Surgeon on board the Orinoco; and while I testify to his skill and energy, I feel, notwithstanding all this, that the chances of recovery would have been far greater, had the men been where they could have obtained, in addition to the skill of the doctor, the attention of the nurse." This is to favour the proposal of establishing an Hospital at St. Thomas's. We should say that, during the prevalence of the fever in that island, it would be better to abandon it altogether as a coaling depôt for the steamers. The Company have decided on removing the coaling station to some other part of the harbour. It would surely be better to choose some other depôt, or have the coals sent out to the steamers in lighters. The Chaplain says, "St. Thomas's is the great central coaling depôt of the Company's vessels; and every one, at least within the tropics,

knows that not one of the Company's vessels which has coaled there but has been attacked with the disease, and also that every vessel that has not gone in there is still free from it. The conclusion that is forced on any one is, that this depôt is the *fons et origo malorum*." Yet he would establish an Hospital in this island. We should say it would be far better to prevent our men from landing on the island.

Mr. Bouverie, the President of the Poor-law Board, alluded a few days ago, in the House of Commons, to a subject of considerable importance to Poor-law Medical Officers. The point was, whether the Overseer of the poor was entitled, in urgent cases, to give an order for Medical relief to such persons as he thought required it. It seems that some case, involving this point, has lately occurred; but the Guardians, not believing it to be a case of urgent necessity, refused to allow the Medical expenses; upon which the Medical Officer brought an action against the Overseer in the County Court, when the Judge decided that the Overseer was not personally liable. Mr. Bouverie considered, and, we believe, correctly, that the decision was sound in point of law, but was understood to have remonstrated with the Guardians upon the hardship of the case. In his subsequent remarks Mr. Bouverie was somewhat unintelligible; for he stated that the Medical Officer had the power of protecting himself, *by refusing to attend a case if he thought it was not one of urgent necessity;* but he added, immediately afterwards, that if, after all, the case turned out to be one of urgent necessity, *the Medical Officer would be held responsible!* Surely this is a very narrow and niggardly way of dealing with the services of the Medical Profession and the sufferings of the sick poor; and it would be far better to pay adequate salaries to the Medical Officers than to induce them, when called in to a case of illness, to begin disputing about the urgency of the case. It is better that a few more shillings or pounds should be paid out of the rates than that any poor wretch should be allowed to perish while the Overseer and the Medical Officer are settling the legal obligations under which they respectively lie.

We have so repeatedly insisted upon the necessity of making special and adequate provision for the care, custody and treatment of our criminal lunatics, that we record with sincere satisfaction the statement of the Home Secretary in the House of Commons, that a vote will be taken in the present session for this express object, and would now merely remark that the vote should be an ample one. The work to be done should be done well while we are about it.

A Parliamentary paper has just appeared containing returns and copies of correspondence respecting Netley Hospital. We give a few extracts, to show that the statements we have made from time to time on the subject have been fully borne out. We stated that the objections of the Medical officers of the Middlesex Hospital were not supported by the Medical Officers of other London Hospitals. The Deputy Inspector-General of Fortifications says:—

"While the Medical gentlemen connected with the Middlesex Hospital still condemn the revised plans, and think the whole design radically faulty, the Medical gentlemen deputed to confer with the Committee on the subject by the authorities of the University College Hospital, St. Thomas's Hospital, King's College Hospital, St. Bartholomew's Hospital, and St. George's Hospital, approve of the revised plans, and think the whole design extremely good.

"It is singular, indeed, to observe that the main feature in the design—the general corridor—should be selected by the Medical gentlemen of the Middlesex Hospital for special reprobation, while the Medical gentlemen of the other five great Hospitals highly approve of it."

The evidence of Drs. Parkes, Barker, Page, Guy, Burrowes, Rees, Dumbreck, and Neil Arnott, is appended in abstract. The remarks of Dr. Burrowes upon the plan of detached buildings for hospitals, are so sensible that we cannot forbear quoting them:—

"*Q.* What is your opinion as regards the comparative merits of the plans of the Bordeaux and Victoria Hospitals now submitted to you?

"*A.* I consider the plan of the Victoria Hospital in a northern climate, such as we have in England, a very superior one to that of Bordeaux, because by the latter plan, where buildings of considerable height are only separated by narrow intervals, the lower floors of those buildings must, to a great extent, be deprived of sun light, and the fog and moisture of the air in the winter months will not be dispersed by the sun's warmth, and hence the air in the intervening spaces will be unhealthy."

We may repeat, that the site was pointed out and approved by Sir James Clark and Dr. Andrew Smith, and selected, after careful reports, by Lord Panmure. The plans were prepared by a Committee, and were submitted to and modified by a Medical Committee. The memorial from the Middlesex Hospital has been of service by drawing attention to the evils of closing the corridor, which had been made an open one by Dr. Andrew Smith and the Medical Committee, but was closed by the Building Committee; and the suggestion to substitute tripartite for ordinary windows on the north-east side of the buildings has been adopted. Some other minor modifications have been made at the suggestion of Dr. Sutherland and Miss Nightingale; and the plans, as thus corrected, have been finally approved. The Committee conclude their report as follows:—

"Although they are aware that the Medical officers of the Middlesex Hospital still retain their unfavourable opinion, notwithstanding the improvements that have been made in the plans, the Committee feel strengthened in arriving at the opposite conclusion, by the concurrent approval of all the Medical officers of the other great London hospitals, whose written opinions on the subject your Lordship will find appended to this report."

Taking into consideration the facts that the Hospital is built for soldiers, that military Medical officers are strongly in favour of small wards, that the Hospital was designed especially to be easy of access from the sea, in order that invalids returning from foreign service might be taken from the ships to the Hospital with the least possible amount of land carriage, and considering carefully the evidence given as to the salubrity of the site, we are led to the conclusion that all the objections raised to the situation and construction of the Netley Hospital have been satisfactorily answered or removed.

The competition for the appointment of Assistant Surgeoncies in the East India Company's Service, has just terminated, and we publish in another column the questions for the written examination. The mode of conducting the competition was much the same as usual. A written examination in Anatomy and Physiology, Surgery, Natural History and Medicine occupied two days. An oral examination, each candidate being questioned for an hour, followed, and afterwards Surgical and Medical patients were examined, and operations were performed on the dead body. We understand there were forty-one candidates for fifteen appointments. The names of the successful gentlemen are not yet known.

Dr. Valentine Mott has been elected President of the New York Academy of Medicine. He is still in active surgical practice, and has lately tied the common carotid artery for the 44th time.

REVIEWS.

The Medical Profession in Great Britain and Ireland, with an Account of the Medical Organization of France, Italy, Germany, and America. By Edwin Lee, M.D. London. 1857.

The Baths of Germany, France, and Switzerland. By Edwin Lee, M.D. Third Edition. Two volumes in one. Pp. 207. London. 1857.

Dr. Edwin Lee, from his frequent visits to the continent, is well acquainted with the state of the Medical Profession in the chief countries of Europe; and those who desire to examine the different laws and institutions prevailing in foreign nations for the education of Physicians and Surgeons, and for the relief of the sick, will consult the present work with advantage. One chapter is devoted to the Medical organization of France; one to that of Italy; another to that of Germany; and a notice is also given, although we believe not by Dr. Lee himself, of the Medical organization and institutions of America. The second part of the book is entitled, "British Medical Organization;" but the portion before us is nothing more nor less than a very vehement attack upon the London Colleges of Physicians and Surgeons. The author has contrived to rake up all the abuse, deserved and undeserved, which has for the last twenty years been heaped upon these institutions, with remarks of his own of a no less damaging character. In his zeal to vilify the Medical Corporations of his own country, Dr. Edwin Lee has carefully excluded any reference to the reforms which have characterized Medical Education and Examination during the period referred to; and, with something like a spirit of unfairness, he actually represents, as now existing abuses, certain defects which have long been remedied. Such being the character of the remarks of Dr. Edwin Lee upon the London Colleges, we feel bound to declare that, while much of his criticism is undoubtedly just, there is much more which is written in a spirit of obvious animosity; we cannot, therefore, allow that he has given an impartial view of British Medical organization, and we must warn foreigners against the erroneous impressions which they are likely to receive of our institutions in these pages.

On the subject of Baths, Dr. Edwin Lee is undoubtedly an authority; and in the third edition of the "Baths of Germany, France, and Switzerland," he has presented the public with the most recent information respecting the mineral springs of the continent, their external and internal applications, and the localities in which they are situated.

On Mental Disorders, their Nature, Cause, and Treatment. By George Moseley, M.R.C.S. L.S.A. etc. Pp. 72. London. 1857.

This book is divided into three chapters, the first of which treats of the symptoms, the second of the causes, and the third of the treatment of mental disorders. The author draws a distinction between mental disorders and insanity, considering, however, that the source of both is in the brain. He deprecates the employment of medicines of an aperient and alterative character in nervous disorders, and combats the idea of their being dependent upon functional derangement of the liver and abdominal viscera. Impressed by the idea that the class of maladies of which the book treats is entirely caused by cerebral derangement, the treatment consists in the use of *a cold bath for the head*, to use the author's own words. The patient's head is held over the bath, and an assistant sponges the whole surface for about a quarter of an hour with cold fresh drawn water, to which some stimulant, refrigerant, and astringent lotion is added; this treatment to be repeated three or four times a day. In a subsequent stage of the treatment the medicated water is poured upon the head from a height in a full stream, changing the direction of the stream from time to time towards different parts of the head, so as to include its whole surface.

BOOK NEWS.

Dr. A. W. P. Pinkerton has published an *Introductory Lecture on Climate*, which was delivered at the Medical School, Surgeons' Hall, Edinburgh, at the commencement of the present Summer Session. The author, who has lately served in the army, has had considerable practical experience of the different climates of various parts of the earth, and of their influence in causing or curing disease. Among other facts of a similar character it is noticed that the mean annual temperature of Scotland is the same as that of the Crimea and New York; but in the latter places the extremes of heat and cold are excessive, owing to their continental position; while Scotland, from its insular situation, has a far more equable temperature.—Dr. F. R. Horner, of Hull, who, we regret to see, once held the position of President of the British Medical and Surgical Association, presents us with his reasons for adopting what he calls the *Rational System of Medicine*, but he takes care to inform us that he means Homœopathy, and the public must no doubt be thankful for the information, for unquestionably whether Homœopathy be true or not, it is the most *irrational* practice that has ever been invented. A system which gravely proposes to cure all diseases by giving the substances which *caused* the disease, and which moreover tells us that medicines gain in power *in proportion* to the subdivision of the dose, may have its attractions for mystics and the lovers of the marvellous, but is totally opposed to the principles of Rationalism. Dr. Horner, moreover, in the excessive zeal of a new-made convert, proves too much in favour of his lately adopted creed; and like the Mesmerists and Coffinists, and the disciples of Morison and Holloway, declares that Homœopathy cures all diseases. It really strikes us as wonderful that, considering the numberless cures which are announced as being performed under so many systems, people of the present day can die at all. It must be admitted that empirics have a great advantage over the legitimate practitioners of medicine in one respect, that the former never lose their cases, and therefore never make *post-mortem* examinations; while the latter admit that diseases sometimes terminate unfavourably under any system of treatment; an admission which, combined with the published details of autopsies in the Medical Journals, must have a very unfavourable influence upon the public. It is somewhat amusing to find in Dr. Horner's pamphlet, which is headed in large letters the "Rational System of Medicine," the following passage in italics at page 43:—"Homœopathy is a fact resting on evidence, and not upon mere reasoning." Therefore the Rational System of Medicine does *not* depend upon reasoning. Those interested in homœopathic controversy will do well to look over a pamphlet, entitled *Homœopathy Unmasked*, in reply to Dr. Horner, which is from the pen of Mr. Dix, a gentleman well known and highly esteemed among the Civil Surgeons lately serving in the East, now practising at Hull. Mr. Dix shows very conclusively that of the cases cited by Dr. Horner as proofs of the power of homœopathy some are Nature's cures, some are not cured at all, and that in other two the patients "were cured by *other medicines*." The homœopathic globules to which Dr. Horner ascribes such wonderful efficacy *were not taken by the patients*. Poor Dr. Horner! —The *Principles of Moral Insanity* is a Lecture by Mr. John Kitching, Medical Superintendent of the Friends' Retreat, near York, and it has already appeared in the pages of a contemporary. It contains some judicious remarks upon this very difficult subject.—*The Structure and Functions of the Eye, illustrative of the Power, Wisdom, and Goodness of God*, is the title of a work by Dr. Spencer Thomson. It is a popular work, comprising a short description of the nature of light, and of the structure of the human eye and that of the lower animals; and the mechanism of this organ is adduced as a striking proof of the wisdom and goodness of the Creator. There is an abundance of well-executed figures and diagrams, and we find that Dr. Thomson has availed himself of all the modern researches upon the anatomy and physiology of the eye, and has described them in a style which may be understood by all ordinary readers.—Colonel George Greenwood has brought out a pamphlet entitled *Rain and Rivers, or Hutton and Playfair against Lyell and all Comers*. The object of this work is to controvert the views advanced by the illustrious geologist, Sir Chas. Lyell, on the formation of valleys. The author displays a great amount of various learning and extensive observation; and we are, therefore, induced the more to regret that he should waste his powers in disputing a particular theory of one author, instead of writing an original treatise. The modern science of geology does not consist in quarrelling about the hypothetical views which different writers may advance in explanation of observed or recorded facts, but in the careful study of nature, and in the accumulation of data on which a consistent theory may hereafter be based.

PROGRESS OF MEDICAL SCIENCE.

Selections from Foreign Journals.

THE DISCUSSION ON CHLOROFORM AT THE PARIS ACADEMY OF MEDICINE.

This discussion arose upon a paper read at the Academy by the recently elected member, M. Devergie. The subject was, "Medical Responsibility in relation to the employment of Anæsthetics;" and the high position its author holds as an *Expert*, and as an official examiner of the bodies of those who die by sudden or violent deaths, confers on his opinions a great authority, not only with the Profession but with the magistracy. On one or more occasions, in France, it has been endeavoured to cast upon the Medical Practitioners who have had the misfortune to lose patients during the employment of anæsthetics, the responsibility of such deaths—thus far, indeed, without success. The object of the paper seems to be to state with precision when such responsibility, under the legal definition of "homicide by imprudence," should be valid, and the means by which Practitioners may shield themselves from its operation. As the discussion went on, it took a wider range, embracing the question of death from chloroform in general—it being almost unanimously determined by the Academy that M. Devergie's positions were untenable, and would prove most mischievous in their operation to the interests of medicine.

M. Devergie commenced his paper by quoting and protesting against two dicta, the one enunciated by M. Gibert, and the other by M. Velpeau. According to the former, Practitioners under whose hands patients have died during the action of anæsthetics should be held entirely irresponsible for that event; while M. Velpeau declares that all apparatuses that have been invented for the administration of anæsthetics are well-nigh useless. M. Devergie attributes the lesser number of deaths that have taken place from anæsthetics since 1853, as compared with a former period, to the fact of Practitioners being more reserved in recommending, and more careful in conducting their employment. Examining the circumstances under which death has occurred, he finds they are not always the same, and that the results of observation on man, and of experiments upon animals, are somewhat at variance. In most of the fatal cases that have occurred, death has taken place within a few minutes after inhalation, so as to lead one almost to admit what is not the case in fact, a toxical effect almost as sudden as that of prussic acid; or we must seek our explanation of the death in a kind of idiosyncracy, by virtue of which certain persons may become fatally impressed by this agent, which others will support almost with impunity. In other cases, again, death has not occurred until after repeated inspirations, and this has been especially observed in individuals who are with difficulty brought under the operation of anæsthetics. The first mode of death has been most frequent in its occurrence, but still this latter mode has also taken place. With respect to animals, however, whatever kind of these may have been employed in the experiments, the mode of death has always been the same, the same phenomena always progressively increasing until the extinction of life, and that with an intensity proportionate to the quantity administered. In man the cause of death is not always the same, but it is impossible to deny that in some cases this may arise from *asphyxia*. Two kinds of such asphyxia are even possible—the one proceeding from a paralysis of the inspiratory muscles of the chest, and the other from want of air. The first of these may be the result of a prolonged chloroformization, while the other would explain those deaths which may take place from the imprudence of the operator offering an obstacle to the free access of air to the lungs. In certain cases even death may be due both to the direct influence of the chloroform and to asphyxia. In support of these views, M. Devergie stated that, in the legal examination that he has made of the bodies of two persons dying from chloroform, he has found all the appearances of asphyxia accurately displayed; and he ventures to make the remark, that the generality of Practitioners, unaccustomed to open the bodies of persons dying suddenly, and only in the habit of observing organs in the diseased state, are not sufficiently familiarized with these appearances, and their comparison with those of healthy organs. At an autopsy all the organs are displaced for examination, the large vessels are opened and emptied, and the whole of the characters which Bichat depicted with such care disappear. The death from asphyxia is further illustrated by the results of the examination of the bodies of the animals experimented upon under the auspices of the Committee of the Société Médicale d'Emulation, a condition of the organs of circulation and respiration evidently denoting asphyxia being found. In M. Devergie's opinion, also, Dr. Snow's patient, who died from the effects of amylene, died in great part under the influence of true asphyxia. Now, if persons may die asphyxiated in consequence of the inhalation of chloroform, should not the Practitioner be held responsible in the eyes of the law if he has not adopted procedures which testify to the material impossibility of death from asphyxia having taken place from any act of his? The only means of doing this is the employment of an apparatus which possesses mechanical means for the admission of the air, independently of any oversight or neglect of the persons employing it. He does not think the magistracy should receive as an excuse for the neglect of employing such an apparatus, the fact of thousands of chloroformizations having been accomplished without the aid of any apparatus at all.

M. Velpeau, believing that death may promptly result from the use of chloroform, yet thinks that with due precautions there is little fear of its occurrence. It was at one time generally believed that such death took place through asphyxia, and it is possible that it may occasionally do so. As to an apparatus, it must always be manœuvred by man, for none are self-acting, and care should be taken not to place too much reliance upon it. The intelligence of the assistant must be well taken into account. The sponge, though not fabricated by an instrument-maker, is still an apparatus, and the best of all. It is porous, allowing free passage of air, and is only applied at some distance from the nose. The apparatus recommended by M. Devergie is nowise superior to those in use, and would only do harm by inspiring a deceitful security.

M. Cazeaux observed that few surgeons now use apparatuses; but before blaming them you must prove that death takes place from asphyxia, which is not the case. Death occurs in a few seconds, and before asphyxia has time to operate. M. Cazeaux believes that the sponge is the means best suited to prevent ill effects, and during its use a privation of air cannot so easily take place as it can during the employment of some of the forms of apparatus. He believes the statements of M. Devergie place in the hands of the magistracy a dangerous weapon, which may be employed to the detriment of practitioners.

M. Gibert, while maintaining his opinion, declined entering further into its defence. Considering the important position M. Devergie holds, he thinks his statements ought to have been more maturely weighed. It is perfectly incredible to hear it stated that the mere fact of a surgeon employing an apparatus should save him from all after consequences. Moreover, it is impossible to make a magistrate a judge of the manner in which a surgeon has employed chloroform.

M. Huguier also observed, that he thought that the paper would do much harm, by leading the magistracy to infer culpability when an apparatus was not employed, while M. Robert is the only surgeon in Paris who uses one.

Reference having been made by M. Devergie to the experiments upon animals performed under the sanction of the Soc. Méd. d'Emulat., M. L. Lallemand, Secretary to the Committee, transmitted an account to the Academy of the conclusions the Committee drew from experiments performed during a twelvemonth upon more than 150 animals. The action of the chloroform was found to be in direct ratio to the activity of the respiration and circulation, and to the quantity administered. It accumulates in the nervous centres, suspending their excito-motory properties, as well as the sensibility and motricity of the cerebro-spinal nerves. Chemical analysis proves that the brain and spinal marrow contain about ten times more chloroform than the blood and very vascular organs. The respiration was always arrested before the circulation, the pulsations continuing for a period varying from 1 to 6 minutes after the disappearance of all respiratory movements. All animals died when left to themselves after the arrest of the respiration, the circulation continuing. In 10 out of 12 life was restored by insufflation, commencing this after the cessation of the contractions of the heart, and continuing it until respiration had become re-

established. Insufflation acts by artificially eliminating the chloroform, and stimulating the excitability of the nervous system. Chloroform is very rapidly eliminated from the economy, the pulmonary surface being the normal channel for such elimination, the cutaneous surface taking little part therein. Death cannot be attributed either to paralysis of the heart or an insufficiency of air penetrating into the lungs; for it may be brought about with the succession of phenomena by injecting chloroform into the jugulars. It is true that the autopsies exhibit a plenitude of black blood, as in asphyxia; but this arises from the persistence of the action of the heart and a diminution of permeability of the lungs, consequent on the arrest of respiration, both phenomena inducing an accumulation of blood in the right cavities of the heart. Death would seem primarily to depend upon the abolition of the functions of the nervous centres, these successively losing their vital properties as the chloroform accumulates in the cerebro-spinal substance. As the intensity and rapidity of the toxical action are proportionate to the concentration of the chloroform vapours, it seems indispensable that these should be diluted with a large proportion of atmospheric air, that should be as constant as possible.

M. Guerin observed, in relation to M. Devergie's opinions on asphyxia deduced from the autopsies, that there are two forms of asphyxia, viz., mechanical primary asphyxia, which is produced by the exclusion of air, and independently of the action of chloroform; and consecutive toxical asphyxia, a secondary product of chloroform intoxication, *i.e.* the result of a paralysis of the dynamic agents of respiration. In the two cases the necroscopic characters would be the same, although the nature of the causes is quite different. Experiment and observation have completely convinced M. Guerin that mechanical asphyxia has never yet been the cause of death to any person subjected to the use of chloroform. He believes that death may be produced in four ways under its influence; 1. By immediate sideration of the general nervous system; 2. By paralysis of the cardiac system, giving rise to syncope; 3. By paralysis of the pulmonary system, giving rise to toxical asphyxia; and 4. By slow and consecutive general paralysis. In death by sideration, death may occur even in a few seconds, all the functions being suddenly and simultaneously arrested; and this condition corresponds to the employment of concentrated, undiluted chloroform. Syncope and toxical asphyxia may also be produced by a kind of local and direct sideration of the cardiac and pulmonary nervous system, as they may also result from the indirect and consecutive action of the chloroform. Attentive observation prevents M. Guerin from agreeing with the statement made by M. L. Lallemand, that respiration always becomes first suspended, and that all animals having their respiration so suspended die; for he has found partial and irregular attempts at respiration after the heart's action has ceased. The phenomena of death by slow intoxication render these observations still more precise; for if chloroform be injected under the skin, death may not occur for five or six hours or more, the pulse and respiration gradually becoming simultaneously imperceptible—it being impossible to say by what vital manifestation death has commenced or terminated. In M. Guerin's opinion, an apparatus should be employed, as the only means of dosing the chloroform and determining its degree of concentration. He described one of his own invention to the Academy.

M. Cloquet observed that M. Devergie's paper related to two points, the dosing the quantity of chloroform, and the prevention of asphyxia. In regard to the first point, he would observe that the variability of the aptitude of individuals renders it quite impossible beforehand to determine the quantity of chloroform that may be required. As to apparatuses, he believed the one he had himself invented to be the best; but after trying it and the others, he is of opinion that they should all be abandoned—the patients really undergoing more chance of asphyxia with than without an apparatus. As to the question of responsibility, the competency of the magistrate cannot be admitted, the Practitioner being the only judge, and he amenable only to his own conscience.

M. Larrey likewise objected to the conclusion that death takes place from syncope, and that an apparatus is requisite for the prevention of this. The sponge or the handkerchief is amply sufficient, and with the best apparatus it is as impossible to estimate the quantity of chloroform inhaled, as it is to fix beforehand the quantity that will be required. The apparatus may even become, by the irregularity of its action or the inattention of the Surgeon, a cause of asphyxia. M. Larrey is inclined to agree with M. Sédillot, that the accidents arising from the use of chloroform may be due to the presence of alcohol or other impurities, and that pure chloroform, poured upon a handkerchief and properly attended to, need give rise to no alarm.

M. Robert observed that there can be no doubt that chloroform, even when pure and ably administered, will cause death; and in reference to Medical responsibility it becomes necessary to determine what constitutes able administration. Whatever the degree of insensibility it is desired to produce, the capital precept must never be forgotten, that its poisonous vapours should always be mingled with the air in small proportions. It is impossible to determine the quantity of chloroform which will be absorbed in a given time. Some patients inspire slowly or incompletely, others more rapidly and with a full chest. We should commence, feeling our way, with small quantities incapable of doing harm, and gradually increase the proportion of the vapour, while watching the effect. An apparatus, the use of which M. Robert approves of, should fulfil the following conditions:—1. A free and easy passage for the air. 2. A means for the ready discharge of the expired air. 3. The possibility of graduating the concentration of the vapour. And 4. Application to both mouth and nostrils. The apparatuses which best fulfil these conditions, M. Robert believes to be those of Snow and Charrière. The question of apparatus is not, however, of the importance this discussion would seem to imply; and M. Devergie, by bringing forward the deficiency of air as a cause of death so prominently, has committed a manifest error, for, as far as M. Robert knows, there is no authenticated case of death having taken place by this mechanism. The question of responsibility is difficult owing to its complexity, occasioned by the variety of effect required to be induced, the various conditions of the economy in which anæsthetics sometimes are and sometimes are not admissible, and the variety of the dose according to individual susceptibility. But these are not in general the greatest difficulties, which consist in the irregularity of the phenomena themselves, and the accidents which may interrupt their course. In animals the progress of the phenomenon is usually very regular; but in man various accidents may arise. We may have at first extreme agitation, evidently due to great cerebral congestion; and at an early period there may be convulsive closure of the jaws or spasms of the pharynx and glottis, which if the apparatus were not removed might give rise to asphyxia. In other cases the salivary and mucous secretions are excited, giving rise to bronchial obstruction and stertorous breathing; and when the anæsthesia is deep the thrusting back of the tongue may become a cause of asphyxia. In some patients a very marked hyposthenic effect is produced during the entire inhalation, and the respiratory movements would cease were they not reanimated at the first signs of giving way. Alarming as some of the above accidents may seem, they are not of so grave a character as might be supposed, for their progress is not so rapid but the careful practitioner may be able to meet them; and up to this time there is no example of their having been the cause of death. But there are other patients, who, after some inhalations which have presented nothing remarkable, and for whom the quantity of chloroform employed has not been large, are mortally seized in a sudden and unexpected manner. Most of the cases on record agree in the instantaneousness of the accidents, and the rapidity of the death—it being a true sideration. It is often impossible to say which of the great organic functions becomes first extinguished; but from an analysis of a considerable number of sufficiently detailed facts it results that it is usually the action of the heart that is influenced—syncope often being manifested at the instant the operation is commenced. In these cases of sideration the lesions after death have been variable, as well as the mechanism by which it has been produced. Some of these lesions are similar to those found in asphyxia, such as stasis in the right side of the heart, fulness of the intracranial veins, etc.; and it is such alterations that have led M. Devergie into error, for they do not arise from mechanical asphyxia, as he supposes, but from chloroform poison. A fact of importance to be borne in mind, first noted by Sédillot, is that the hyposthenic effect of chloroform does not cease immediately, and may even continue to increase for some time after the inhalation has been discontinued; so that we must be on the look-out for the possibility of syncope for

some time after the patient has come to himself. Finally, how are these accidents to be prevented or to be arrested when they occur? As to the question of the prohibition of chloroform in a given case, it may be observed that if there are unfavourable circumstances that may make us hesitate and redouble our precautions, there are very few which constitute formal contra-indications, and a limit that ought not to be passed without blame. Of the measures for preventing accidents, the horizontal posture has been properly insisted on, as has an empty state of the stomach. Besides that the induction of anæsthesia is longer and more difficult, and accompanied by more agitation when the viscus contains food, its irritability, at all times liable to be induced by chloroform, is more probable when the patient has eaten. The importance of the occurrence of syncope is too great for attention not to be carefully directed to the pulse, but no less care must be bestowed upon the respiration. When asphyxia is imminent the apparatus must be removed, and appropriate treatment adopted. But what is to be done at that awful moment when, in spite of all precaution, we stand face to face with imminent death? Many patients have been saved by placing them in the horizontal posture, or lowering the head when already so placed. The state of anæsthesia is the great obstacle to the treatment of the syncope by external stimuli. If the respiratory movements become slow or cease, they must be imitated by alternate pressure of the thorax and abdomen, a means employed by M. Robert twice with success. When syncope is present little hope is to be entertained from it, but still it is our only means. "It results from all this that chloroform, whose power is so marvellous, is likewise a poison; and we should follow the rules of therapeutics, which enjoin the employment of energetic substances in moderate doses only. The choice of apparatus is not of much moment, each employing that which he is most accustomed to, providing he does so with prudence. The inhalation should be continuous at first, providing accidents do not call for its temporary suspension. But as soon as the anæsthetic sleep is completely established, and especially where there is resolution of muscles, its application should only be intermittent, repeated only when sensibility seems about to be aroused again. So employed, the anæsthesia may be maintained for a considerable time without inconvenience. The accidents, such as excitement, spasm, or asphyxia, which may interrupt its progress, are not difficult of recognition, and may be arrested by suitable means. Syncope is less amenable, while all that has been hitherto opposed to sideration has proved useless. Cases of death from chloroform are happily too rare to compromise the future of anæsthetics, but they are none the less true, and are sufficient to prevent the practitioner from overlooking the danger, and not holding himself always in guard against it. If a calamity of this sort happens we should hold, until proof is given to the contrary, that all has been properly attended to, and not seek to throw upon the practitioner the responsibility of an accident with which the powerlessness of art is alone chargeable."

[To be continued.]

FOREIGN CORRESPONDENCE.

FRANCE.

[From our Paris Correspondent.]

Paris, 20th July, 1857.

It has been justly noticed that the strictest relations exist between all the products of the human mind. A link that cannot be denied unites all the forms of intellectual work either in science or in art. In the life of nations, history can prove that there is an almost regular rise or decline of every sort of progress. In our time it seems to me that there is actually a marked stoppage to any Medical, scientific, and literary advance. One can be easily convinced of this truth by looking backwards at the times of Bichat, of Dupuytren, of Laennec, of Broussais. These years of progress, of discoveries, of general activity have long since disappeared.

Our epoch began about 1840. The men who were at that time at the head of the Medical world of France—clever lecturers, rich in practice—who are now the first Physicians of the country—what have they done to mark the progress of the science and of the practice of their art? Those pupils who had listened in amazement to the powerful voice of Broussais and of Dupuytren sought in vain their echoes. No man there was, nor has there been, since that time to take in hand the great problems of Medical and Surgical science,—to look at them with an independent and elevated mind. No one had that masterly will and intelligence which, settling the long disputes, discovers new laws and overrules for a time our progress. If in the first years which followed the death of Broussais some men have risen in reputation, it was only a transient light, and the hero soon vanished with his early fame.

I beg pardon for the length of these remarks; perhaps you would desire that in proof of these general opinions I should quote some men in particular to whom my remarks can be applied. I dislike everything that resembles personal feeling against such and such authors or professors; but in this case I am not the least embarrassed, because I can find in every name the example that strengthens my opinion. Every one can be taken as the justification of my remarks. Chomel, Andral, Bouillaud, Trousseau, among the Physicians; among the Surgeons, Langier, Velpeau, Jobert, Nélaton: all these clever practitioners or writers, who enjoy an undoubted fame, and who will have a conspicuous place in the history of Medicine in our times, have not any of the qualities which give to some men an extra position among their contemporaries. Theirs is not the brilliant genius of Bichat, of Laennec, neither the deep penetrating mind of Haller, of Hunter. Their works are full of good practical rules, their mind is endowed with excellent judgment, knowledge, and learning; but the sacred fire of scientific genius is not with them. There is in their lectures plenty of clinical and pathological observation, plenty of therapeutical prudence, but nothing that evinces in them the eager prosecution of a lover of science.

The discoveries of Bichat, of Laennec; the great impulse given by Dupuytren to Surgical practice; the men of our days have made no effort to increase them, so as to open new paths for inventions. A long, minute, and rational observation of symptoms, a good description of post-mortem anatomical alterations, such was the aim of all the endeavours of the last fifty years. In the history of medicine there are certainly many periods less profitable than ours, less rich in scientific data, but none is poorer than ours in independent aspiration, in diversified prosecutions, in original views and thoughts. Every writer of every school follows the same road; it seems to every reader that Medical knowledge has but one aim, which can be attained but in one manner. Such a monotony of mental production has perhaps never been equalled.

The fact is, that these dangerous symptoms are not generally remarked or weighed. We go over these things without observing or controlling them. In truth how could such an indolent feeling be controlled or criticised in these times? A mechanical and industrious work of descriptions is taken for the work of thought; thought itself in all its manifestations is neither listened to nor looked at; men of ideas are called dreamers. It is not imagined that activity of inquiry can desert the accustomed mode and try new systems, see new things, and settle by a new method some of the eternal disputes of our art.

Few men have enjoyed, like Bichat, honours in this life, and left in their century a feeling so general of admiration for their works and their character. The praises of posterity, like those of contemporaries, have been bestowed upon that extraordinary genius, who wrote in the prime of life that most remarkable work of anatomy and physiology, the Treatise on Membranes. The name of Bichat had long been inscribed in front of the Medical Schools of Paris. Last Thursday his statue was placed, with great pomp and ceremony, in the Court of the Faculty. According to French custom in such cases, the Minister of Public Instruction had the President's place in the meeting, which all the lecturers of the Faculty, all the members of the Academy, of the Institute, of the Imperial School of Military Medicine, attended. It was a grand assembly. Several orators were heard: MM. Serres, of the Institute, late President of the Medical Congress of France, who voted nine years ago that the statue of Bichat should be erected at the Faculty; Bouillaud, Lecturer of Clinical Medicine; A. Latour, the clever Secretary of the Congress; H. Baron Larrey, in the name of the Medical Faculty of Emulation. The speech of the last orator was most interesting, and most applauded, particularly when the

memory of the eminent artist, David d'Angers, the sculptor of the inaugurated bronze statue, was recalled.

In these official speeches one cannot find the exact appraising of the merits of a man; but one might hope to have a complete account of all his works and of his life. The discourse of Larrey gives a good narrative of all the scientific life of Bichat,—that life so short, so full of inimitable writings and works.

You have heard that the Academy of Medicine has been engaged for a month in a long discussion about the use of chloroform. Seven speeches have been heard, a great deal has been done to explain the sudden deaths that occur during the administration of the anæsthetic agent, and to prevent them; but—it is painful to tell it—as yet nothing new, nor worth registering, has been uttered in the learned assembly. Not one of the learned members who have spoken has examined the question in its true sense,—not one has shown the cause of its difficulties. The action of an energetic substance like chloroform must not be studied alone,—it must come in comparison with that of other analogous medicinal agents. We require for such a study a number of original and well-made observations. No such thing has been done. The facts upon which the discussion bears are not in sufficient number, neither are they tolerably well observed. The orators have put together all these observations; they have valued them at the same rate; they have not made those necessary reflections, that most of the observers of these accidents, of these sudden deaths, are persons quite unable or quite unprepared to make a scientific relation of what has happened before them. I hasten to say that some of the most clever orators of the Academy have not yet been heard. It is to be desired that Velpeau, who has a learned, sound, and practical mind, when he takes the question in hand will put it in a new light, and give an enlarged view of its difficulties.

None of our Medical newspapers have given an account of the valuable report of MM. Trebuchet and Robinet upon the unhealthy lodgings of Paris. All our periodicals are exclusively devoted to pathology; public hygiene seems of little interest to them, and they often leave unnoticed important hygienic data. Several non-professional journals have given a just praise to the work of the commission of which MM. Trebuchet and Robinet are the reporters. That matter has been much scrutinized in England of late years, and your literature is rich with statistical inquiries, and has many interesting researches upon the dwellings of the poor in different towns and rural districts. In France that subject has been also well studied during the last twenty years, but the result of these official inquiries remained buried among the different unpublished papers of our sanitary boards. The first printed report upon the hygienic condition of the lodgings in Paris was made in 1852. The actual report includes the work of the commission in 1852, 1853, 1854, 1855, and 1856. During these five years, 1,645 unhealthy houses have been inspected and improved, which is a considerable number if you mark the unsettled state of that question for a number of years previous to 1850, and the care that is taken of the just concerns of the owners of houses built long since.

The Act of 1850, upon premises in such a state as to be offensive or injurious to health, provides that, should the state of any messuage, or house, or building be such as to render it unfit for human habitation, such structural works as may be necessary to prevent the nuisance are required of the owner of the premises, to insure the proper execution of what has been decided for the abatement of nuisances by the members of the Sanitary Commission. Local engineers have been appointed, who take care that the works required are well defined and executed in time. All these observations apply particularly to the numerous lodgings let out by the week, or even by the day, to the labouring population of Paris. The number of these dwellings or apartments becomes every year less and less; so that we may consider that in some years more the unhealthy conditions of several parts of Paris will be completely changed.

The annual meeting of the Gloucester Medical and Surgical Association was held on Thursday, at Cheltenham, under the presidency of Dr. Davey, of Northwoods, near Bristol. There was a very numerous attendance of members from all parts of the county. Thomas Hicks, Esq., of Gloucester, was unanimously elected president for the year ensuing, and J. W. Wilton, Esq., re-elected hon. sec.

PROVINCIAL CORRESPONDENCE.

IRELAND.

[From our Dublin Correspondent.]

Dublin, July 18th, 1857.

The Lord-Lieutenant has appointed Mr. James Stannus Hughes, M.D., Fellow of the Royal College of Surgeons in Ireland, to be Surgeon to his Excellency's household, in the room of Dr. Hatchell, promoted to the office of Inspector-General of Lunatic Asylums. Dr. Hughes already held the appointment of Surgeon in Ordinary to his Excellency.

I am happy to be able to record an act of determined bravery, performed on Thursday evening last by a member of the Medical Profession. A boy named Joseph Ward, while fishing at Bachelor's-walk, fell into the river Liffey, and was on the point of perishing, when Mr. John Henry Hunt, who was passing at the time, jumped into the water in his clothes, and at the risk of his own life rescued the boy from his perilous position. Those who are acquainted with the height of the quay wall at this point of the river will understand the danger to which Mr. Hunt exposed himself by this exercise of his philanthropy; and it is doubly gratifying to think that his noble exertions were rewarded by the preservation of two lives, as it is probable that but for them a man, who was making futile efforts to save the boy, would likewise have been lost. Mr. Hunt is a licentiate of the Apothecaries' Hall of Dublin, and is a candidate for the letters testimonial of the College of Surgeons.

The following gentlemen have been elected by the Senate of the Queen's University to fill the office of examiners in the several departments of medicine and the collateral sciences for the ensuing year. Medicine—Professor Fergusson, Queen's College, Belfast. Surgery—Maurice Henry Collis, Eng., M.B., Surgeon to the Meath Hospital, Dublin. Anatomy and Physiology—Professor Harrison, Trinity College, Dublin. Materia Medica, Pharmacy, and Medical Jurisprudence—T. G. Geoghegan, Eng. M.D., Professor of Medical Jurisprudence in the Royal College of Surgeons in Ireland. Midwifery and Diseases of Women and Children.—Professor Harvey, Queen's College, Cork. Chemistry — Professor Rowney, Queen's College, Galway. Zoology and Botany—Professor Smith, Queen's College, Cork.

The names of those admitted to Medical Degrees, conferred at the Summer Commencement, held in the University of Dublin on the 7th of July, were as follow:—M.D.—Robert Law, and Robert M'Donnell. M.B.—Edward R. Townsend, William A. Hope, Charles Bagot, William S. Fisher, Henry Ussher, William Ashton, James F. Pollock, James Wilson, Francis J. B. Quinlan, and Richard B. Carson. The degrees were conferred by the Right Hon. Francis Blackburne, Lord Justice of Appeal, Vice Chancellor of the University.

The King's County assizes opened on Saturday, the 18th of July, under the Lord Chief Justice Lefroy, when Denis Grogan was charged with having through carelessness caused the death by poisoning, of the Rev. James Alexander, LL.D. We have already remarked at length upon this melancholy case in our publication of the 18th of April last, (vol. xxxv. p. 388.) The Chief Justice, in charging the jury, said he felt it his duty to lay down the law on the subject, in order that the public might be protected from the negligence of shopkeepers, who chose to sell food and poison in the same shop, and to make profit thereby. His observations were equally applicable to apothecaries as to grocers; and he held the law to be, that if a party sold poison when he was asked for food, and death ensued, even though the act was unintentional, he rendered himself liable to be charged with manslaughter. The law did not require that there should have been gross negligence—all that was necessary was to show that there had been such criminal inattention or culpable negligence as to cause the act which led to the death of the person to whom the poison was administered. The jury found the prisoner guilty. On Monday the 20th, the prisoner was again placed at the bar, when the Chief Justice, addressing him at considerable length on the nature of his offence, proceeded to pass sentence.—He showed that it was not of wilful negligence, but of carelessness, of want of due caution, that the prisoner had been found guilty. The jury had recommended him to mercy, "and I am very glad," added the Judge, "to have that ground of mitigating a sentence, which otherwise I should

have felt myself bound to have passed upon you. The sentence must be one which shall mark the offence, even under the circumstance of your being recommended, that others may feel and know that they are bound to show diligent caution in selling such a destructive material as arsenic. You have been in prison for one month, and the sentence is that you be imprisoned for five months from the first day of the assizes."

Mr. Curran, counsel for the prisoner, hoped that the legislature would interfere to prevent grocers from selling poisons in this manner.

Chief Justice—It should be made a serious offence for any grocer to have arsenic mixed with his provisions. Arsenic forms a portion of the Materia Medica, and, therefore, apothecaries and druggists should be allowed to sell it, but under restrictions such as are observed in Scotland, where the person by whom poison is received is obliged to affix his name to a receipt in a book kept for the purpose.

Mr. Curran—It is an inconsistency, my lord, in our law that no person but a licensed apothecary will be allowed to compound medicine intended to preserve life, while any grocer may sell a deadly poison like arsenic.

GENERAL CORRESPONDENCE.

TREATMENT OF DELIRIUM TREMENS.

[To the Editor of the Medical Times and Gazette.]

Sir,—The article in the *Medical Times* of July 4 on the action for libel, Jones *versus Daily News*, affords us another illustration of the adage, "When doctors disagree, who shall decide?" and certainly the evidence of the celebrities examined is somewhat conflicting. The following case occurred in my practice last year, and appears to me to be possessed of some interest in reference to the disputed point. If you agree with me in opinion, will you insert it in an early number of your valuable journal?

On August 21, 1856, a man, aged about sixty, met with an extensive fracture of the lower half of the left femur, from a kick by a horse. He was of a somewhat worn, debilitated constitution, having drunk hard during the greater part of his life, but he had not been intoxicated for many years. At the time of the accident he was in his usual health, and suffered nothing materially from the adaptation of the fracture, which I arranged on the double inclined plane principle, with a box for the thigh, made with flaps moveable on hinges. After the fracture was arranged, I administered a few doses of tr. opii to procure sleep, and all went on prosperously until August 27, the sixth day, (except that there was some difficulty in procuring a proper action on the bowels,) when symptoms of delirium tremens came on. I have no special notes of the case, but, as far as I remember, there was no difference between his symptoms and those usually met with in delirium tremens. I treated him in the usual way with opium, and his ordinary stimulant, porter, but without procuring sleep. Having never previously met with a case in which the vigorous prosecution of this treatment failed, I was somewhat staggered at the end of forty-eight hours to find no improvement.

Noticing, however, a slight wiriness about the pulse on the 29th, the 8th day, I determined to combine tartar emetic with the opium, and prepared him the following:—℞ antim. pot. tart. gr. i.; liq. opii sedat. ♏x. (equal in strength to ♏xv. tr. opii) ʒss.; mist. camph. ʒvi. M. sumat 4tam partem secundâ quâque horâ. Very soon after taking the second dose he fell into a sound sleep, which continued for eight or nine hours, and when he awoke he was perfectly collected and rational, but said he was not aware of anything that had happened for three days. Liq. opii sedativus was repeated every night for three or four nights. The pulse resumed its natural condition, and he recovered, without a bad symptom afterwards.

So violent and unmanageable was he, that the ordinary attendants were quite incapable of controlling him, and had the fracture been arranged with the long straight splint, it would have been constantly displaced; but the apparatus used allowing of the free motion of the pelvis on the thighs, the extremities of the femur being securely fixed, very little, if any, motion was admitted between the ends of the bone. In this case, I think it cannot be doubted that the antim. tart. was the agent most influential in procuring sleep, as the night previous to commencing this treatment I gave the patient ʒss of liq. opii sedat. without producing the slightest effect. The effect of tartar emetic in calming nervous irritability, quite unconnected with inflammation, has been equally well marked in many other cases which have come under my observation. I am, etc.

John Ewens.

Milton Abbas, Dorset, July 10, 1857.

ON THE TREATMENT OF TALIPES VARUS.

[To the Editor of the Medical Times and Gazette.]

Sir,—I must claim your indulgence to make one or two remarks on Mr. Brodhurst's answer to my paper on the statements put forward by him in the number of your Journal for June 27, in reference to the treatment of varus. Mr. Brodhurst denies that he *says* the scaphoid bone offers the greatest obstacle in the treatment of varus. If he object to the word *says*, I am willing to exchange it for *implies;* and since the quotations I have already made from his paper do not seem, in his opinion, to substantiate my statement, I will quote one or two other passages which, I think, will quite convince any one (and not "a hasty reader") that he attaches the greatest importance to the scaphoid bone, and comparatively little to the cuboid. He says, "And, although ablation of the cuboid bone has been proposed for only a very limited class of cases, in which the treatment is exceedingly difficult, the operation cannot be sanctioned; first, *because the cuboid bone is not an obstacle to the removal of varus.*" So much for the little importance he attaches to the cuboid bone; and now for the scaphoid, to which I assert he attaches the greatest importance, and makes it the greatest obstacle in the treatment. He says, "It is *always difficult* to overcome this rotation of the scaphoid; and, indeed, *it may not be possible*, even after the division of the tendons, to depress the anterior portion of the foot inwards sufficiently to overcome the rotation without dividing some of the ligamentous structures on the inner side and sole of the foot."

Again, "It is *not possible to adopt a substitute of any kind* for this necessary replacement of the scaphoid bone, *without which* the limb must ever remain lame, and which having been accomplished, the *cuboid bone is no longer a real obstacle to the complete eversion of the foot.*"

Again, "The *difficulty* of overcoming rotation of the scaphoid bone appears to some *to be so great as to be almost insuperable.*"

I think, Sir, that I need not quote further from Mr. Brodhurst's paper to prove that, if he does not say, he certainly implies, that the scaphoid bone is the greatest obstacle in the treatment of varus, and that the cuboid is comparatively insignificant; and that, however "amusing" it may be, I have not "put statements into his mouth, and then, forsooth, charged him with ignorance for uttering them." I need not say that I shall not trouble you further on the subject, and have the honour to remain, your obedient servant,

Edward F. Lonsdale.

26, Montague-street, Russell-square,
July 18th, 1857.

REPORTS OF SOCIETIES.

EPIDEMIOLOGICAL SOCIETY.

Monday, June 1.

Dr. Babington, President, in the chair.

Dr. Tripe read a paper

ON THE MORTALITY FROM ERUPTIVE FEVERS AT DIFFERENT PERIODS OF THE YEAR.

The main results of the present paper were as follow:—1st. That small-pox presents two periods of depressed, and two of elevated mortality; the first period of elevation occurring in January, and the second at the end of May, or early in June; the former being the highest; the first period of depression being at the end of March or early in April, and the second

in September, the latter being the lowest; and that, therefore, small-pox is most fatal in winter, next in summer, and least fatal in spring. 2nd. That a series of cold springs is attended with comparatively a large mortality, and that the period of highest mortality coincided with a temperature of less than 60° Fah., and the lowest of above 46° Fah. 3rd. That the highest average mortality in the seventeen corresponding weeks of 1840—56 was more than double the average lowest mortality. 4th. That measles has only one period of highest and one of lowest mortality, the former occurring in December, and the latter varying in different years; but the rate of death in spring is much smaller than in any other quarter. 5th. That the rate of death was greater in the series of spring and winter quarters which were below the average temperature, than in those which were above it. 6th. That, as in small-pox, the average highest mortality during seventeen corresponding weeks in 1840—56, was more than double the average lowest mortality. 7th. That scarlet fever presents one period of highest and one of lowest rate of death, and this more markedly than either small-pox or measles; the greatest number of deaths occurring at the end of October or beginning of November, the lowest at the middle or end of March, or early in April. 8th. That the average mortality is higher in warm springs than in cold. 9th. That the mean of the greatest number of deaths in seventeen corresponding weeks of 1840—56 was about twice and four-fifths as large as the mean of the lowest number of deaths in the seventeen corresponding weeks. 10th. That there is not any particular short period at which it can be said to reach its culminating point. 11th. That the greatest rate of death occurs in autumn, and the smallest in spring, the difference between them being less than in any other eruptive fever. 12th. That the average maximum number of deaths in seventeen corresponding weeks in the years 1840—56, was not much more than one-half that of the minimum. 13th. That the period of greatest mortality from diarrhœa is very definitely marked, occupying a period of about seven weeks (from the 31st to the 37th), during which more than two-thirds of the annual mortality takes place; the greatest rate of death extending from the last week of July to the first week in September. 14th. That this period corresponds with a mean weekly temperature of 60·5, or above.

A discussion followed, in which Dr. Milroy, Dr. Babington, Dr. Patrick Frazer, Mr. Marson, and Dr. McWilliam, took part.

WESTERN MEDICAL AND SURGICAL SOCIETY OF LONDON.

At a late meeting of this Society, a case was read by Mr. Cumberbatch, of

HÆMATURIA IN A CHILD.

The patient was eight years old, and when visited was passing urine tinged with blood. The only assignable reason for this condition of the urine was that the patient had come into rather forcible contact with a desk or form at school, some time previously; but the injury was very slight, and attracted no notice when it occurred. It was ascertained that no calculus existed, and the attack of hæmaturia had not been ushered in by pain or pyrexia. The treatment at first consisted in the administration of mild aperients and small doses of gallic acid. As the symptoms did not disappear under this treatment, leeches were applied over the right kidney, a purge of calomel and jalap was ordered, and small doses of tr. ferri sesquichloridi were given in place of the gallic acid. Under this treatment, combined with saline aperients, and the application of ice over the kidneys, the patient improved, and eventually became quite well. Mr. Cumberbatch thought that the history of the case suggested the inquiries whether the disease was idiopathic or traumatic, whether the seat of disease was the bladder or the kidneys, and what was the proper mode of treatment? On the important point of treatment, he considered that, besides the recognised modes which were adapted to the circumstances of each case, the gallic acid was, on the whole, the most valuable astringent in the hands of the practitioner.

At another meeting of this Society, Mr. D. O. Edwards read a paper "On the Oscillatory Law of Climatial Salubrity, and on the Climate of Chelsea." After making a topographical sketch of this ancient suburb, and stating many archæological facts of high local interest, Mr. Edwards proceeded to remark that, as he had undertaken to show that Chelsea is salubrious, it was necessary for him to prove his position. To prove this point, it was necessary to show that it has the qualities which constitute salubrity; and having sifted, without success, the ordinary sources of information on the subject, the writer was induced to seek a new track of investigation in the records of the Army. As regards health, one British regiment forms the exact type of another; and as English military corps are quartered in all the different climates of the world, their comparative health must correctly indicate the degrees of salubrity which belong to each climate. Now, in contrasting one climate with another, Mr. Edwards placed Sierra Leone at one extremity of his scale, because it is the most unhealthy post, and Albany, on the eastern frontier of Africa, at the other extremity, because it is the most healthy; and he thus constructed a table, presenting the following stations in the relative order of their salubrity, viz.:—Sierra Leone, Jamaica and Maroon Town, Kandy, Bermuda, Malta, Corfu, Gibraltar, Nova Scotia, and Albany. After a careful examination of the disturbing circumstances in each of the places, Mr. Edwards deduced the following law from the preceding table, which in the original contains not only the enumeration of the stations, but also the ratio of deaths in 1000; the mean temperature of the year; the greatest daily, monthly, and annual range of the thermometer; and the greatest range of the dew-point. The law is, "that the salubrity of any climate is dependent on the ratio of the extreme range of temperature, and of the variation of the dew-point to the line of mean temperature,"—in other words, that in temperate climates the thermal oscillations, diurnally and zodiacally excited, are less extensive than in the extremes of hot or cold; that in Europe health is consistent with more moderate variations of temperature; but that in the torrid zone short oscillations of the thermometer, and a constantly high dew-point (as at Sierra Leone and Jamaica), are destructive of health. But at Albany, where the temperature in some seasons is greater than at either of the two last-mentioned places, the rapid and sweeping rises and falls of the thermometer, and the very high degree of dryness, are attended with unequalled health and longevity, the mortality among the troops being but 7 in 1000, and the deaths among the civil population being 1 in 91. Mr. Edwards exhibited a great number of tables and diagrams, which showed the continual recurrence of changes every hour, every minute, and every second, in the temperature of the air, and in that of the dew-point, demonstrating a condition of perpetual agitation in that mysterious principle called caloric, which is every instant necessary to the existence of terrestrial life. Every agitation in the degrees of heat and moisture must excite a corresponding agitation in the living fibre; and we easily infer, therefore, how greatly affected the animal machine must be by oscillations of temperature of such magnitude as 40° or 50°. Having formed a climatial criterion applicable to all regions, Mr. Edwards proceeded to compare very carefully the circumstances described as natural to Chelsea with his hygrometric scale, and the result was to show that Chelsea is a residential climate of a high character. Among many other tables and diagrams brought forward in illustration of the above remarks, a painted map, showing for twenty years the mean temperature of each day, the monthly extreme maximum, the extreme minimum, the monthly variation of the dew-point, the distance of the solar and thermal equinox, spring and autumn, as well as the distance between the solar and thermal solstice, &c., excited much admiration.

QUESTIONS

FOR THE WRITTEN EXAMINATION FOR THE

HON. EAST INDIA COMPANY'S MEDICAL SERVICE.

ANATOMY AND PHYSIOLOGY.

Monday, July 13, 1857.—10 *to* 1 *o'clock.*

Mr. Busk.

I. Anatomy.

1. Describe the shoulder-joint, enumerating in their order the muscles surrounding it, and noticing the mode in which the various movements of the joint are affected by them.

2. Describe the surgical anatomy of the external iliac artery, and the operation for the ligature of the vessel.

3. Describe the parts exposed by the entire removal of the pectoralis major muscle.

4. Describe the parts concerned in the different kinds of inguinal hernia, and the distinctive anatomical characters of each.

II. Minute Anatomy and Physiology.

5. Describe the blood in man, including its physical and chemical characters; and noticing the distinctive peculiarities of the blood in man and other mammals, birds, fish, and reptiles.

6. Describe the structure of the permanent cartilaginous tissues in the human body, noticing the parts in which they occur, and the uses to which they are subservient.

7. Describe the processes of digestion and absorption of bread, meat and milk.

SURGERY.

Monday, July 13, 1857.—2 *to* 5 *o'clock.*

Mr. Paget.

1 Describe and explain the symptoms of complete paralysis of one of the 3rd, or oculo-motor, pair of nerves.

2. Give some account of rigors or shivering-fits occurring after surgical operations, stating what they may indicate according to the times and manners of their occurrence.

3. Describe the usual characters of dry gangrene, as it occurs in the lower extremities; enumerate the chief causes of it; describe the process of separation of the gangrenous part; and, if there be any cases of the kind in which you would amputate a limb above the line of demarcation, state what they are.

4. Give an account of urinary perineal fistulæ; stating, particularly, the chief causes and manners of their formation, and the appropriate modes of treatment.

5. Describe the process of cicatrization, as it may be seen after the separation of the eschar of a burn extending deep into the subcutaneous tissue; describe also the contraction of scars formed after burns, and, briefly, the best means of preventing it

6. State the symptoms of dislocation of the head of the humerus into the axilla; indicating, particularly, those among them which are most trustworthy in diagnosis.

7. Write prescriptions in Latin for what are or may be used in Hospital-practice, as lead-wash, spirit-wash, zinc-wash, black-wash, alum-gargle, black draught, jalap and calomel pills, colocynth and calomel pills, morphia draught.

8. A girl, ten years old, cut her wrist, three days before her admission into an Hospital, with a piece of a broken jug, which entered just to the inner side of the median line of the wrist, on its palmar aspect. The wound, it was stated, bled severely at the time of infliction, and was immediately padded and bandaged. No further bleeding ensued; but, when she was admitted, the wound was not healed, but contained a clot of blood, and was near the highest part of a pulsating swelling, which extended down to the palm. The radial artery in its whole length, and all the digital arteries, pulsated naturally; the ulnar artery pulsated as far as the swelling, into or beneath which it seemed to pass. Pressure on the radial artery at or above the wrist stopped the pulsation in the swelling: pressure on the ulnar did not affect it.

State what you think had happened in this case, and how you would have treated it.

NATURAL HISTORY.

Tuesday, July 14, 1857.—10 *to* 1 *o'clock.*

Dr. Hooker.

Botany, etc.

Answer five or more of the following Questions.

1. Give examples of plants having esculent or medicinal subterranean stems, and describe shortly the nature of their stems.

2. Describe the flowers and fruits of wheat, oats, and barley.

3. What are the characters of the flowers of *Orchideæ*, *Irideæ*, *Labiatæ*, *Compositæ*, and *Leguminosæ?* Give examples of each order.

4. How does the woody root of a Dicotyledonous plant differ from the stem of the same?

5. What plants produce galbanum, sagapenum, myrrh, aloes, and cloves?—what are these products, and what countries do they come from?

6. What natural orders or species of plants abound most in oxalic, malic, and prussic acids?—what are the properties of those acids?—how may they be recognised, and what are the antidotes for poisoning by any of them?

7. In what respect as articles of diet do wheat-flour, pea-flour, Cruciferous and Umbelliferous vegetables differ from one another?

8. What does the process of assimilation in plants consist of?

9. What are the usual products of decomposition of animal matter, and what of vegetable?

10. How would you distinguish a cotton from a linen fabric?—what are their respective properties as articles of clothing?

11. What are woody-fibre, spiral vessels, cork, and bast?

12. What parts of what plants are usually employed in making common thread, rope, and cotton-thread?

13. What are the differences between boiled and unboiled water; and between hard and soft water?—and how may hard water be rendered soft?

14. What are land and sea breezes, what are the causes of them, and what their general effects in hot climates?

15. If required to find the best site for a permanent station on a damp tropical coast, to what local circumstances in the soil, climate, etc. would you direct your attention?

ZOOLOGY.

Answer two or more of the following Questions.

1. How do the teeth of Rodents, Ruminants and Carnivora differ; and what modifications of food do these differences indicate?

2. Describe in general terms the eyes in Mammalia, Reptilia, Aves, Insecta, and Cephalopoda.

3. To what classes of animals do the Teredo Navalis, Guinea-worm, Leech, Water-newt and Tape-worm belong? Give short characters of any or all these animals, and of their habits.

4. Define the terms Morphology, Comparative Anatomy, Histology, Psychology, class, order, genus, and species.

5. Write down the scientific name of a Mammal, Bird, Insect and Fish, together with the names of the classes, orders and divisions of the Animal Kingdom to which they severally belong.

MEDICINE.

Tuesday, July 14, 1857.—2 *to* 5 *o'clock.*

Dr. Parkes.

1. What are the causes, symptoms, and treatment of paralysis of the Portio dura?

2. Describe the general and microscopic characters of the several forms of softening of the brain.

3. Give the causes, anatomical characters, symptoms, and effects of vesicular emphysema of the lungs.

4. What are the chief causes of hypertrophy of the left ventricle of the heart? What are the physical signs of such hypertrophy, and of the most usual coincident cardiac lesions?

5. How would you tell that a liver is enlarged? Give the diagnosis of the several kinds of enlargement or tumour of the liver.

6. Enumerate the causes of hæmatemesis and melæna? Prescribe for a case of hæmatemesis supposed to depend on simple ulcer of the stomach, and write the prescriptions in full.

7. What are the symptoms, causes, and treatment of rickets in children?

8 What are the causes and treatment of Puerperal Convulsions?

9. A man aged thirty-six, supposed to be in good health, was employed in the month of November in work which obliged him to stand in water to his waist. In three or four days he noticed that his legs were swollen, and on the following day he had violent pain in the head, dry cough, and difficult respiration. When first seen, nine days later, there was general anasarca, excessive headache, dry tongue, albuminous urine, and general dry bronchitis. These symptoms continued for some days, and were then attended by palpitation, enfeebled vision, increased cough, viscid reddish expectoration, crepitant râle, and then bronchial respiration at the apex of the right lung. On the following day there was delirium and almost complete suppression of urine, and in a few hours afterwards coma and death.

State generally what was the course of events from the period of attack till death; describe fully the condition of the

urine during the ease, and the eondition of the kidneys and lungs after death. State what nosologieal term you would have applied to sueh a disease, and what treatment you would have adopted.

10. What modifieations in the quality and quantity of food would you recommend for adult Europeans who are suddenly transferred from a temperate to a tropieal elimate?

PARLIAMENTARY INTELLIGENCE.

HOUSE OF COMMONS.

Several petitions have been presented during the week in favour of Mr. Headlam's Bill, against the Scotch Lunaey Bill, and praying for a redress of the grievanees of Poor-law Medical Officers.

LUNATICS (SCOTLAND) BILL.

The House went into eommittee on this Bill.

Progress was made up to elause 108.

Upon a elause brought up by the Lord-Advoeate, empowering the Home Secretary, if neeessary, to appoint two Medieal persons to be deputy commissioners under the Aet, with salaries of £500,

Mr. Buchanan said, the intended appointment of these persons was quite unknown to the Scoteh members. He thought that altogether the passing of this Bill had been too much hurried. (Hear.)

The Lord-Advocate observed, that instead of proeeeding too hurriedly, they had been more than ten years employed in the work of legislation. (Hear.) He should have thought that the House had greatly failed in its duty, if some attempt had not been made in the present session to remedy the evils at present existing in the system.

Mr. Buchanan explained, that he had not meant to say that no legislation ought to have taken place this year; he only eontended that the House had been too mueh hurried at last.

The clause was then agreed to.

Several other clauses were brought up and agreed to.

LUNATIC ASYLUMS (SCOTLAND) BILL.

The House went into committee on this Bill.

Mr. H. Baillie would be glad to see a elause introdueed, rendering illegal the eonfinement of pauper lunaties in private asylums.

Mr. Mackie entered a protest against the ereation of a new board, and the new and expensive machinery eontemplated by this Bill.

Sir W. Dunbar thought that no ease had been made out for the appointment of a new board, whieh was generally believed to be unneeessary in Scotland.

Sir J. Ogilvy said, a strong feeling existed in Scotland that the Board of Supervision furnished an efficient machinery eapable of supplying all the defeets of the present system without the ereation of any new board.

Mr. Hope Johnstone had also had representations made to him from every quarter in opposition to the appointment of a new board.

Mr. Drummond said, that the question was not so mueh what would be the most expensive as what would be the most efficient machinery. There were plenty of representatives of the ratepayers in that House, but no representatives of the lunaties of Scotland. (Laughter.) They seemed to have no friends there, while really they were the persons who stood most in need of being represented.

The clause was then agreed to, as were also elauses up to 16, with verbal amendments.

ASYLUMS FOR CRIMINAL LUNATICS.

In answer to Mr. J. Ewart,

Sir G. Grey said, it was the intention of the Governmen[t] to establish asylums to be exclusively devoted to the eonfinement of eriminal lunaties, and a vote would be taken this session for the purpose.

INSPECTOR OF LUNATIC ASYLUMS (IRELAND).

Mr. Cairns asked whether the statement whieh had appeared in the publie newspapers, that Dr. Hatehell had been appointed Inspector of Lunatie Asylums in Ireland, was correet; and, if so, whether Dr. Hatchell had had any and what experienee in the management of lunatie asylums, or in the treatment of the insane.

Mr. Herbert stated in reply that the announeement which had appeared in the papers relative to the appointment of Dr. Hatehell as Inspeetor of Lunatie Asylums in Ireland was perfeetly eorreet. With regard to the seeond part of the question, Dr. Hatchell had never been eonneeted with a lunatie asylum in a publie capaeity, but as surgeon to the Irish eonstabulary, whieh offiee he had held for nine years, he had had frequent opportunities of inspeeting and treating lunaties. He was edueated in Stevens's Hospital in Dublin, whieh was in eonnexion with Swift's Lunatie Asylum, where he had ample opportunities of observing the treatment of the lunatie. He (Mr. Herbert) might add that Dr. Hatchell had been 24 years a Fellow of the Royal College of Surgeons in Dublin, had been an M. D. for 23 years, and his appointment by the Lord-Lieutenant had been generally approved by persons who knew how well qualified he was by his skill and experience for the offiee alluded to.

MEDICAL NEWS.

Royal College of Surgeons.—The following gentlemen, having undergone the necessary examinations for the diploma, were admitted members of the College at the meeting of the Court of Examiners on the 17th instant:—

Chapman, William Edwin, Sketton, Yorkshire.
Coote, James Richard, Mallow, county Cork.
Cross, Richard Hamilton, Dublin.
Crossley, William Henry, Wath-upon-Dearne, Yorksh.
Galton, Edmund Hooper, Brixton Rise.
Langley, Edward H. R., Killiney, Dublin.
Millard, Joseph, Claremont-square, Pentonville.
Moore, John Daniel, Leieester.
Palk, Henry, Southampton.
Rendle, Charles Bainbridge, Plymouth.
Wilkinson, Alfred George, Birmingham.

The following members of the College having undergone the neeessary examinations were admitted lieentiates in midwifery at the meeting of the Board of Examiners on the 15th inst.

Biddle, Henry Cooper, Edmonton.
Catling, George Taylor, Highbury.
Fitzgerald, Edward Ambrose, Caleutta.
George, Charles Frederick, St. Thomas's Hospital.
Hartley, John Henry, Thames Ditton, Surrey.
Ives, Robert, Chertsey.
Littlewood, Joseph, Hampole, Doneaster.
M'Limont, Robert, London.
Pughe, Hugh Riehard, Bala, North Wales.
Roberts, John Thomas, New Romney, Kent.
Rowlands, Isaac, Llanfair, North Wales.
Skinner, David Shorter, Headeorn.
Thane, George Dancer, Hart-street, Bloomsbury.
Von Tunzelmann, Julius Waldemar, Brixton-hill.

Apothecaries' Hall.—Names of gentlemen who passed their examination in the Seienee and Praetiee of Medieine, and reeeived Certifieates to Praetise, on July 16, 1857:—

Bannister, Alfred James.
Galton, Edmund Hooper, Brixton Rise, Surry.
Harris, Lewis, Broadhampton, Totness, Devonshire.
Ince, Eugene Seys, 3, Wilton-street.
Rowland, Rowland, Strata, Florida.
Thomas, John Little, Carmarthen.
Ward, Isaac Dunlin, Clifton, York.

The following gentlemen passed their examination in Classies and Mathematies, on Tuesday and Wednesday, the 21st and 22nd inst.:—

Armstrong, George William, 32, Duke-street.
Arnott, John Lovell, Cheltenham.
Ashforth, George Morris, Luton.
Bazley, William, 40, Portland-square.
Barnes, Edward Charles, Hammersmith.
Batho, Robert, Amesbury, Wilts.
Best, Palemon Henry, Penzanee.
Bewiek, N. Bewiek, Chigwell.
Blair, Charles Edward, Mitcham, Surrey.
Bogg, Thomas Wemys, Louth, Lincolnshire.
Branson, Henry John, Stoke Albany.
Brodie, George, Salisbury.
Brown, James Herbert, Lewes House, Brighton.
Calthrop, Edward, Withern, Lincolnshire.

Coates, Frederick William, Salisbury.
Copland, Frank, Writtle, near Chelmsford.
Curme, Decimus, Dorchester.
Dean, Charles Maclin, Birstal, near Leeds.
Dibb, Edward N., Wakefield.
Dyte, David Hyman, 44, Houndsditch.
Edlin, Edward Hillington, Plymouth, Devon.
Elwes, Charles Walter, Charlton, near Cheltenham.
Fletcher, William B., Beccles, Suffolk.
George, T. M. Southam, Peterborough.
Gibson, Walter, Walford, Cambridge.
Grewcock, John Baily, Folkingham, Lincolnshire.
Halman, Henry, Crediton, Devon.
James, Thomas Jones, Dolybwch, Aberystwith.
Jenner, William, Devizes, Wilts.
Johnson, Thomas S., 7, Lee-road, Blackheath.
Killingworth, Thomas B., Braintree, Essex.
King, Thomas, Stratton, Cornwall.
King, Francis, Stratton, Cornwall.
Laidlaw, William, Newcastle-on-Tyne.
Lattey, Richard Allen, 53, Cambridge-terrace.
Lee, Herbert Grove, Thame, Oxon.
Ludlow, Ebenezer, Brighton.
Mackintosh, Hugh R. D., Charlton Kings.
Meadows, George F. W., Otley, Suffolk.
Merriman, Henry B., 45, Kensington-square.
Nesham, Thomas C., Newcastle-on-Tyne.
Newbold, Edward Thomas, Macclesfield.
Norton, Arthur Trehern, 4, Westbourne-grove.
Orton, Charles, North Stafford Infirmary.
Pearce, George, Salisbury.
Pocock, Crawford John, 42, Cannon-place, Brighton.
Quarnell, William, Weston-super-Mare.
Ricketts, James, Clitheroe.
Rose, William, Holly Cottage, Homerton.
Savage, Thomas, Birmingham.
Shippee, William Henry, Bedford.
Smart, Bath Charles, Balsham.
Steele, Charles, Clifton, near Bristol.
Thelwell, William, Queen's College, Birmingham.
Thompson, Abraham, King's College.
Thursfield, William Nealor, Shropshire.
Travers, William, Poole, Dorset.
Ward, Martindale C., Chelsea.
Waterworth, Charles, A., South Molton.
Willey, Henry, General Hospital, Nottingham.
Wilmot, Robert, Mozeley, Birmingham.

DEATHS.

Ager.—On the 17th, in Great Portland Street, St. Mary-le-bone, Joseph Ager, M.D., in his 77th year.

Armstrong.—On the 7th, at Hulme, near Manchester, James Armstrong, L.R.C.S. Edin., aged 62.

Barrow.—On the 4th, at Wedmore, Mr. Edward Barrow, surgeon, third son of the late John Barrow, Esq., aged 44.

Bellot.—On the 25th ult., Mr. Thomas Bellot, F.R.C.S.E., Surgeon, Royal Navy, late of H.M.F.S. Britannia, Black Sea, and the Naval Hospital, Therapia, on the Bosphorus, having previously served in the East and West Indies, South Africa, China, and in command as Surgeon-Superintendent to Australia.

Elliott.—On the 9th, in Paris-street, Exeter, J. Elliott, M.R.C.S. Eng., and L.S.A, 1823, aged 56.

Kipling.—On the 9th, at Howgill, W. Kipling, L.S.A. 1827, of Barnard-castle, Durham, aged 56.

Mackarsie.—At Monte Video, on the 12th May, on board H.M.S. Indefatigable, Mr. H. H. Mackarsie, Surgeon, R.N. (of H.M.S.S. Rifleman), where he had been removed for medical treatment; brother of Mr. Mackarsie, Surgeon, Clay-cross, Derbyshire.

Robertson.—On the 13th, at Madrid, Dr. John Robertson, Inspector-General of Hospitals.

Dr. Livingston's Researches in Central Africa.—Dr. Livingston, during his travels in Central Africa, did not neglect natural history and botany. The small collections of plants which he brought home has been placed with Dr. Joseph Hooker, the distinguished botanist and Himalayan traveller, for description; and the insects in the hands of Mr. Westwood, who exhibited some of them at the meeting of the Entomological Society on the 6th instant. Amongst the latter was a small insect which is found on the leaves of the Bauhinias, covering itself with a viscid secretion or scale, like the Wo-me-la of the Australian aborigines, by whom it is scraped off the leaves and eaten as a saccharine dainty. It is also eaten by the natives of Africa. The doctor also brought home specimens of an insect, into which the natives dip the points of their arrows, to render them poisonous; also a species of tick, which enters into the flesh of the feet of the negroes between the toes, often causing severe wounds and illness. He has also fully confirmed Major Vardon's account of the destructive properties of the fly called Teste by the natives, which is greatly dreaded from being able to kill horses, and of which a scientific description has lately been published by Mr. Westwood in the Proceedings of the Zoological Society of London. These curious insects may be seen at the Taylor Institution, Oxford.

Death of Dr. Badham, the Naturalist.—We regret to announce the death of a gentleman whose "ancient and modern fish tattle," and numerous papers on natural history in *Fraser's Magazine* and other works, are well known—the Rev. C. D. Badham, M.D., who expired at East Berghott, Suffolk, on Tuesday, aged 51. Dr. Badham (who had practised as a physician, as his degree indicates), was latterly Rector of All Saints, Sudbury, Suffolk.

Hospital for Disabled Merchant Seamen.—An influential meeting was held yesterday in the Egyptian-hall, at which the Lord Mayor presided, to promote the formation of a Hospital for aged and disabled master mariners and seamen of the mercantile marine. Many naval officers of high rank were present. The Lord Mayor having adverted to the importance of the object in view, Lord Henry Cholmondeley read a statement from the Board of Management of the Shipwrecked Mariners' Society, going at some length into the subject, and recommending that there should be a Hospital founded for 500 men, and that a plan should be adopted for giving out-pensions as a part of the institution. Captain the Hon. F. Maude, R. N., then moved a resolution in favour of the formation of such a Hospital as was contemplated. The resolution was carried, and it was also agreed,—"That a building be raised on the banks of the Thames, within the port of London, to be called (with Her Majesty's permission), 'The Royal Hospital for Worn-out and Disabled Merchant Seamen.' That the said building be prepared for the reception of 500 persons selected from the different grades of the mercantile marine, and that it be commenced so soon as there is a fair prospect of £50,000 being subscribed, and that a plan of out-pensions be grafted on the institution."—Mr. W. Phillips moved the next resolution, to the effect that the meeting viewed with much satisfaction the donation of £5000 from the corporation of the Shipwrecked Mariners' Society in aid of the movement for the foundation of the proposed Hospital, and pledged itself to use its utmost endeavours to carry out so noble and important an object. The motion was seconded by Mr. Montagu Gore, and carried. Other resolutions of a business character were agreed to, and thanks to the Lord Mayor concluded the proceedings.

Labour under Difficulties.—Dr. Shapard, of Nashville, relates the following example of what a woman recently delivered will sometimes undergo. A stout healthy woman, aged 25, while walking home, a distance of five miles, was seized with the pains of labour. The last mile was over a rough, rocky ridge, a few hundred feet high. During the ascent her pains became worse and worse, and on reaching the summit they were so urgent that she sat down near the root of a tree, and gave birth to a fine son, a tremendous thunderstorm bursting forth at the time, the rain pouring in torrents, and the wind blowing a hurricane. Her husband, who was with her, ran for assistance, but on his return he met his wife, who had taken off her dress, and wrapped the child and afterbirth in it, the funis not being divided, and was carrying it on one arm, and leading her other child with the other hand. So much rain had fallen that she had to wade up to her knees through the water, and before she could reach home she had to cross a ten-railed fence, which she did with the babe still in her arms. The remainder of the way was over a newly ploughed field, through which it was difficult to walk. Next morning she got up, and has ever since attended to her household affairs without inconvenience.

GENEROSITY OF THE AMERICAN EDITOR OF A EUROPEAN WORK.—As a set-off against the wholesale robbery European Medical writers are often subjected to at the hands of their American editors, we may notice the following gratifying fact. When Dr. Draper brought out his edition of Sir Robert Kane's Chemistry, Harper and Brothers paid him $1000. The whole sum was generously forwarded to Sir Robert Kane by Dr. Draper, who never received any emolument from the work, but was at the trouble of bringing it out because he believed such a work was wanted in the Colleges. The magnanimity of the transaction was enhanced by the fact that Drs. Kane and Draper were strangers to each other, the proceeding being entirely spontaneous on the part of the latter, and unexpected on that of the former.

CONVENTION OF AMERICAN MEDICAL EDITORS.—During the next meeting of the American Medical Association at Nashville, it is contemplated holding a convention of editors of the American Medical press, "to deliberate upon all subjects pertaining to the support and progress of Medical periodical literature." One of the principal grievances to be redressed, it seems, is the custom of a large number of "subscribers" receiving their journals regularly without paying for them, while others again require such dunning as to cost the proprietors more than they are worth.

ARTIFICIAL MATERNAL MILK.—The following remarks are from an interesting paper lately read at the Harveian Society by Mr. Lobb:—"There are objections besides that of adulteration to the use of cow's milk for infants, although pure.

Constituents of	Maternal milk.	Cow's milk.	Ass's milk.
Caseine or curd	2·02	4·48	1·82
Butter	3·05	3·13	1·11
Lactine or sugar of milk	6·50	4·77	5·08
Salts { Lactate of soda .. .. / Chloride of potassium .. / Phosphate of lime, iron, &c. }	45	60	34
Water	87·98	87·02	90·65
	100·00	100·00	100·00

"In comparing the constituents of these, it will be perceived that the maternal milk contains less than half the amount of curd that is found in cow's milk, and a little more than ass's—a little less butter than cow's, and an excess over the ass's—more sugar than ass's, and a good deal more than cow's—the salts do not vary so greatly in amount, and the water a little more than cow's, but considerably less than ass's. By adding two and a half per cent. of cream to ass's milk, a very good substitute for the maternal milk would be procured with great ease, but ass's milk is so expensive in London that it would remove such a preparation entirely beyond the reach of the poor, whom I desire to benefit equally with the affluent. By removing a portion of curd from cow's milk, and adding sugar of milk, a cheap and excellent substitute can be obtained."

VITAL STATISTICS OF LONDON.

Week ending Saturday, July 18, 1857.

BIRTHS.

Births of Boys, 860; Girls, 826; Total, 1686.
Average of 10 corresponding weeks, 1847-56, 1379.

DEATHS.

	Males.	Females.	Total.
Deaths during the week	550	511	1061
Average of the ten years 1847-56	...	...	1023
Average corrected to increased population	...	...	1130
Corrected average for corresponding week in ten years 1847-56	527·2	501·1	1028 3
Deaths of people above 90	...	...	..
Deaths in 13 General Hospitals	28	19	47

DEATHS REGISTERED DURING THE WEEK.

Causes of Death.	In the Week ending Saturday, July 18, 1857. Deaths of Persons. At all ages.	Under 20 Years of Age.	At 20 and under 40 Years of Age.	At 40 and under 60 Years of Age.	At 60 and under 80 Years of Age.	At 80 Years of Age and Upwards.	Averages of Temperature and Deaths in 10 Weeks.
Mean Temperature	Mean temp. 68°0						62°6
ALL CAUSES	1061	630	138	134	119	34	1028·3
SPECIFIED CAUSES	1055	630	138	134	119	34	1020·9
DISEASES:—							
1. Zymotic Class	314	275	12	9	16	2	324·7
2. Dropsy, Cancer, and others of uncertain seat	51	7	7	22	13	2	45·7
3. Tubercular Class	194	99	60	31	4	..	194·6
4. Of Brain, Nerves, etc. ..	108	61	14	18	13	2	104·1
5. Of Heart, etc.	33	3	11	10	9	..	35·7
6. Of Respiratory Organs ..	83	40	8	14	19	2	93·1
7. Of Digestive Organs ..	63	28	11	11	12	1	62·0
8. Of Kidneys, etc.	21	2	5	10	4	..	13·5
9. Of Uterus; viz. — Puerperal Disease, etc. ..	6	..	2	4	..	..	8·8
10. Of Joints, Bones; viz.— Rheumatism, etc. ..	15	6	3	2	4	..	8·2
11. Of Skin, etc.	4	1	..	1	1	1	2·3
12. Malformations	7	7	..	..	..	..	3·4
13. Debility from Premature Birth, etc.	38	38	..	..	..	..	27·8
14. Atrophy	53	43	..	1	8	1	30·1
15. Age	35	..	..	..	13	22	34·6
16. Sudden	2	1	..	..	..	1	5·5
17. Violence, Privation, etc. ..	28	19	5	1	3	..	26·8
CAUSES NOT SPECIFIED.. ..	6	..	..	..	..	..	7·4

DEATHS IN SUB-DISTRICTS FROM EPIDEMICS.

	Population. 1851.	Small-pox.	Measles.	Scarlatina	Hooping-Cough.	Diarrhœa.	Typhus.
West	376,427	..	1	1	5	24	4
North....	490,396	..	..	6	8	30	4
Central ..	393,256	..	7	2	7	27	7
East	485,522	1	10	5	17	37	6
South	616,635	..	3	3	5	32	11
Total..	2,362,236	1	21	17	42	150	32

METEOROLOGY.

From Observations at the Greenwich Observatory.

Mean height of barometer	29·998 in.
Mean temperature	68·0
Highest point of thermometer	89·7
Lowest point of thermometer	50·9
Mean dew-point temperature	57·0
General direction of wind	S.W.
Whole amount of rain in the week	0·15
Amount of horizontal movement of air in the week ...	400 miles

BOOKS RECEIVED.

Animal Physics. By D. Lardner, D.C.L. London. 1857.
The Great Fact. A Reply to Dr. Horner. London. 1857.
A Few Words about Poisons. By a Pharmaceutist. London. 1857.
Light in the Valley. By Mrs. N. Crossland. London. 1857.
On Diseases of the Skin. By T. Hunt, F.R.C.S. Second Edition. London. 1857.
Revue des Spécialités, etc. Par V. Duval. Paris. 1857.
Hydropathy. By E. W. Lane, M.A., M.D. London. 1857.
The Druggist's General Receipt Book. By H. Beasley. Fourth Edition. London. 1857.
The Doctrine of the Duration of Labour. By J. M. Duncan, M.D. Edinburgh. 1857.
Annual Report of the Edinburgh Insane Asylum. Edinburgh. 1857.
Otto's Manual of the Detection of Poisons. Translated by W. Elderhorst, M.D. New York. 1857.
The Indian Annals of Medical Science. No. VIII. Calcutta. 1857.
Annual Report of the Commissioners of Emigration of the State of New York. New York. 1857.
The Use of the Microscope in Clinical Medicine. Illustrated. No. I. Urinary Deposits. By Lionel S. Beale, M.B. F.R.S. London. 1857.
How to Work with the Microscope. By Lionel S. Beale, M.B. F.R.S. London. 1857.
Thirtieth Annual Report of the Perth Lunatic Asylum. Perth. 1857.
Second Annual Report on the Births, Marriages, and Deaths in the City of Providence. By E. M. Snow, M.D. Providence. 1857.

TO CORRESPONDENTS.

A Subscriber will find the account of Wutzer's operation in the xxxviith volume of the Medico-Chirurgical Transactions—not the xxviith, as we stated last week.

Mr. M. G. Evans has sent us a "report of a case of nephritis proceeding to suppuration, and discharging externally;" but we adhere to the rule of not inserting communications sent to other Journals.

M.D. begs to inquire where the experiments of M. Chauveau on the sounds of the heart, allnded to by our French correspondent at p. 677 of the last volume of this Journal, are recorded.—The attention of our correspondent shall be directed to the question.

A Subscriber.—There has been no alteration in the regulations since our last Students' Number.

A. B. C.—The wines from the Cape of Good Hope have been very much improved during the last two or three years. They differ in some respects,—acidity, strength, and sweetness,—from the wines of Spain and Portugal, but their general stimulating properties are very similar.

A Great Admirer.—Ozone is allotropic oxygen, that is to say, oxygen in a certain molecular condition different from that which it usually presents. It may be prepared by passing a series of electric sparks into oxygen, but it exists naturally in certain states of the atmosphere. There are two ozonometers in use at the present time, namely, Dr. Schönbein's, and Dr. Moffat's. The principle involved in both is the decomposition of iodide of potassium by ozone, which causes the liberation of the iodine while the ozone (oxygen) unites with the potassium. Papers prepared with iodide of potassium are exposed in a dark box, through which the air blows freely. If ozone be present the iodide of potassium is decomposed, and the deeper or lighter tints produced are in proportion to the amount of iodine disengaged. In Schönbein's instrument the liberated iodine is placed in contact with wetted starch, which gives the characteristic blue colour. The relative proportions of ozone are indicated by the brown tints produced in one instrument and the blue tints in the other.

A Young Surgeon.—We are not aware that it is intended to relax any of the regulations now in force with regard to the competitive examinations for the appointment of Assistant-Surgeon in the East India Company's service.

Official Plagiarism.

TO THE EDITOR OF THE MEDICAL TIMES AND GAZETTE.

Sir,—In the Report on the Lunatic Asylums of Scotland, recently presented to Parliament, the following note at page 238 occurs:—

"In the Grand Duchy of Baden, the Government is so convinced of the importance of early care, that it offers indigent patients gratuitous treatment for six months in the Asylum of Illnau, provided they are sent in at the commencement of the disease."

In Dr. Webster's observations on the same institution, which were published in the July number of the Psychological Journal for 1852, that author remarks, at page 367: "An important rule in reference to the admission of curable pauper lunatics deserves particular notice, on account of its beneficial operation, namely, wherever application has been made for admission in such cases, before the patient's mental malady has continued six months, then no payment is expected from the Commune for their maintenance during the first half-year's residence. The object of this excellent regulation being to induce relatives, or others, to send such insane persons to the Asylum without delay, so as to augment the probability of ultimate recovery."

Perhaps Parliamentary privileges allow Royal Commissioners to appropriate whatever facts or statements they may find elsewhere recorded, without deigning to acknowledge the real source from whence any interesting information officially promulgated by them was obtained. If such be legitimate practice, the example above quoted is an apt illustration; since no allusion is made to the writer just named, who five years ago noticed this peculiar feature characterising the Asylum at Illnau, and which is now mentioned in terms of commendation by the Scottish Commissioners, as if it were previously unknown.—I am, &c.

A Critic.

A Visitor in London.—Admission to the Museum of the College of Surgeons may be obtained by an order from any member of the College.

American Plagiarism.

Mr. F. T. Bond complains that the Editors of Ranking's Retrospect, in quoting a paper by a Dr. Snell of Amsterdam, N. Y., in which this author gives the credit to Simon of pointing out the analogy between Chorea and Rheumatism, both depending on blood change the result of malassimilation, have overlooked the claims of Dr. Begbie of Edinburgh. Mr. Bond says:—"It is unnecessary to inform your readers that the view of the dependence of chorea upon the presence of some noxious matter in the blood of rheumatic patients, which is here claimed for Simon, and is so completely reproduced by the writer as "*our* theory of the disease," was first clearly stated by Dr. James Begbie of Edinburgh, in an admirable little paper which he published in the Monthly Journal of Medical Science for April, 1847, and that the merit and originality of the idea have been fully recognised by all subsequent writers of any note both at home and abroad. Reference, therefore, to almost any work on the subject would have sent Dr. Snell at once to the correct source of information, and would have induced him as an honourable man to acknowledge his obligations to it. How far this has been the course pursued by him may be seen by comparing the following passages, in which Dr. Begbie's words are pilfered, verbatim et literatim, without the slightest reference being made to him, but with the perpetration of a blunder which gives good reason to believe that he grammatical education of the plagiarist has been nearly as much neglected as the cultivation of his moral principles. "Keeping these facts in view," says Dr. Begbie, "and calling to recollection the several cases which have been recorded elsewhere, with the purpose of illustrating the connexion of the two diseases, I cannot help coming to the conclusion, that the simple and true view of their relation is to be found in the morbid condition of the blood which is admitted to exist in the rheumatic constitution; and this explanation will apply equally to chorea occurring in individuals or families inheriting the rheumatic diathesis; to chorea occurring in connexion with rheumatism, but without the cardiac complication, and to chorea associated with pericarditis, or endocarditis, or both; the inflammatory affections of the fibrous tissues, as well as the spasmodic affections of the muscles and tendons, originating in the same specific disorder of the circulating fluids." "Upon the whole we cannot but believe," echoes Dr. Snell, omitting, however, perhaps for reasons of his own, the reference of Dr. Begbie to "the several cases which have been recorded elsewhere," "that the simple and true *views* of their relation *is* to be found in the morbid condition of the blood which is admitted to exist in the rheumatic constitution. That the inflammatory affections of the fibrous tissues, as well as the spasmodic twitchings of the muscles and tendons originate in the same specific disorder of the circulating fluids." The argumentative force of the last sentence will be doubtless appreciated by your readers, and gives unmistakable proof that Dr. Snell is anything but an adept at literary patchwork. I will only add that the greater portion of the rest of his short paper gives indubitable evidence that he must have composed it with that of Dr. Begbie under his hand, and yet he makes no reference whatever to that gentleman's contribution—an omission which is the more marked when contrasted with the scrupulous exactness with which Dr. Begbie himself has cited all the authorities who had in any way written on the subject before his time."

Errata.—Page 64, col 8, line 2, for "thick and red" read "thickened;" col. 5, line 13, for "dislocation" read "disease;" line 24, for "combined" read "compound;" line 29, for "the last" read "Chopart's." Page 65, column 10, line 3, for "perineal" read "peritoneal;" col. 7, line 9, for "double" read "simple;" col. 7, line 15 from the bottom, for "into" read "with."

Dr. MacCormack.—The Memorial of the Militia Surgeons shall be noticed next week.

Dr. Kirkes and Dr. Child.—Papers from Dr. Kirkes and Dr. Child are in type, but the proofs had not been received from those gentlemen a the hour of going to press,

An Edinburgh Student.—Hoblyn's Dictionary of Terms used in Medicine and the Collateral Sciences. Price 10s. Published by Whittaker and Co.

COMMUNICATIONS have been received from—

Dr. Walshe; Mr. Paget; Mr. Toynbee; Dr. Kirkes; Dr. Markham; Mr. Lonsdale; Dr. Gibbon; Mr. Burford Norman; Mr. Aveling; Dr. Dobell; Dr. Bader; Mr. Newnham; Dr. Lardner; Mr. Moseley; Mr. Brunton; Mr. Hart; Mr. Illrey; Mr. Dowb; Mr. Turner; Mr. Rose; Mr. Bolton.

APPOINTMENTS FOR THE WEEK.

25. *Saturday (this day).*

Operations at St. Bartholomew's, 1½ p.m.; St. Thomas's, 1 p.m. Westminster, 1 p.m.; King's, 2 p.m.; Charing Cross, 1 p.m.
Royal Botanical Society, 3¾ p.m.

27. *Monday.*

Operations at the Royal Free Hospital, 1 p.m.; Motropolitan Free Hospital, 2 p.m.; Orthopædic Hospital, 3 p.m.

28. *Tuesday.*

Operations at Guy's, 1 p.m.

29. *Wednesday.*

Operations at University College Hospital, 2 p.m.; St. Mary's, 1 p.m.; Orthopædic Hospital, 3 p.m.

30. *Thursday.*

Operations at St. George's, 1 p.m.; Middlesex, 12½ p.m.; Central London Ophthalmic, 1 p.m.; London, 1½ p.m.

31. *Friday.*

Operations at the Moorfields Ophthalmic, 10 a.m.; Westminster Ophthalmic, 1½ p.m.

ORIGINAL LECTURES.

A COURSE OF LECTURES
ON THE
NATURE AND TREATMENT OF THE DISEASES OF THE EAR,
DELIVERED AT
St. Mary's Hospital Medical School.

By JOSEPH TOYNBEE, F.R.S.
Aural Surgeon to St. Mary's Hospital, Lecturer on Aural Surgery at St. Mary's Hospital Medical School, and
Consulting Aural Surgeon to the Asylum for the Deaf and Dumb.

(Reported by JAMES HINTON, Esq.)

LECTURE XV.

EUSTACHIAN TUBE.

Anatomical Observations. — The Eustachian tube, extending between the cavity of the fauces and that of the tympanum, is from an inch and a half to two inches in length. At its faucial orifice it is wide and dilatable, but it soon becomes so constricted as barely to admit an ordinary sized probe. Its direction from the tympanum is obliquely downwards, inwards, and forwards.

The Eustachian tube consists of two portions—the *osseous*, and the *fibro-cartilaginous;* the *osseous* portion extends from the tympanic cavity to the fibro-cartilaginous portion; it is about three-quarters of an inch in length, and about a line in diameter. It is lined by an extremely thin fibro-mucous membrane, very similar to that lining the tympanic cavity.

The *fibro-cartilaginous* portion, as its name implies, consists of cartilage of fibrous tissue; it is about an inch in length. Its shape is that of a cone, the apex being continuous with the osseous portion, while the base extends into the cavity of the fauces in the shape of a rounded tubercle. Upon examination the rounded extremity of the cartilaginous portion is found to form a superior and inferior lip; the superior one projects slightly downwards, and forms the upper wall or angle of the tube; the inferior lip turns slightly upwards, and forms the inferior angle. The fibrous membrane forming the outer wall of the tube is attached above and below to the two lips above described; anteriorly it forms a free border, and posteriorly it is attached to the anterior border of the outer part of the osseous portion. The trumpet-shaped faucial orifice of the Eustachian tube is nearly half an inch long; its middle part may be considered to be on a level with the inferior meatus of the nose. The use of the Eustachian tube is to allow ingress of air to the tympanum, and egress of mucus from it; but the point of importance which remains to be considered is, whether its guttural orifice is always open, so that the air in the cavity of the tympanum is *constantly* continuous with that in the fauces. The opinion entertained by physiologists is in favour of this view. Müller says, that the object of its being constantly open is, "that a certain degree of dulness which the sound might acquire from the resonance of the apparatus is avoided." He adds that "Henle supposes that the air of the cavity of the mouth and nose are in like manner evolved through the medium of the Eustachian tube to increase by resonance the intensity of sounds entering the ear by the external meatus." (a)

Dr. Todd speaks of one object of the Eustachian tube being to afford "an outlet for the escape of such sonorous undulations as do not impinge upon the labyrinthine wall of the tympanum." (b)

Other writers differ in some measure from the view advocated by the above and other physiologists in favour of the constantly patent condition of the Eustachian tube. Thus, Mr. Wharton Jones says:—"It is to be remarked that the Eustachian tube is not habitually wide open, so that the air can flow freely in and out, but that, on the contrary, in the state of rest its walls are collapsed. By this arrangement, which gives the Eustachian tube the property of a weak valve, opening either way, the too ready course of the air is opposed." (c)

(a) Müller's Physiology, translated by Baly, vol. ii. pp. 1270-1273.
(b) Cycl. of Anat. and Phy., article Hearing, pp. 576.

Hyrtle agrees in the above statement, and says:—"The walls of the convoluted trumpet are disposed to lie upon each other, and form mucous adhesions, so that, as any one can easily satisfy himself, a considerable degree of compression of the air in the mouth and nose, (by means of the muscles of the cheek, the mouth being shut,) is necessary in order to force air into the cavitas tympani." (d)

In a paper laid before the Royal Society in the year 1853, I endeavoured to show that in the state of repose, the faucial orifice of the Eustachian tube is always shut, that the means whereby it is opened are the muscles of the palate, and that it is opened during the act of deglutition. In that paper I showed that in man and most mammalia, the muscles opening the Eustachian tube were the tensor and levator palati, which it has been long known are attached to its orifice; in some mammalia the tube is opened by the superior contractor of the pharynx, and in birds by the internal pterygoid muscles. That the Eustachian tube is usually shut, and that the act of swallowing is the process whereby it is opened, is shown by the following experiments:—If the cavity of the tympanum be partially distended with air, by making an attempt at a forcible expiration through the nose when the nostrils are held closed, a sensation of fulness or pressure is experienced in the tympanum, arising from the pressure of the air against the inner surface of the membrana tympani; this sensation does not, however, disappear as soon as ordinary respiration is carried on, but it remains until the act of swallowing is performed, whereby the air is allowed to escape. Again, if the mouth and nose be held closed during the act of deglutition, the same sensation of pressure in the ears is experienced, for during that act the air which is slightly compressed by the muscles of the fauces passes into the tympanic cavities; in this experiment also the feeling of distension remains until the act of swallowing is again performed while the mouth and nostrils are open. A third experiment, showing that the Eustachian tubes are opened during the act of swallowing, and that they are closed when the muscles of the fauces are in a quiescent state, is usually performed by a person descending in a diving bell. It is well known that during the descent the compressed air which fills the external meatus produces a sensation of weight, and often of pain, by the pressure inwards of the membrana tympani. This sensation is, however, at once relieved by the person performing the act of swallowing, whereby the condensed air is allowed to enter the tympanum through the Eustachian tubes, and to give support to the inner surface of the membrane. Another proof that air enters the tympanic cavity during deglutition when the nostrils are closed, and that it passes out again during the same act if the nostrils are open, is obtained by the inspection of the membrana tympani in the living person by means of a strong light during the two operations; in many instances the membrana tympani is seen to be pressed slightly outwards by the first, and to return to its previous state during the second act.

ON THE MUSCLES WHICH OPEN THE EUSTACHIAN TUBE.

Valsalva (e), in his admirable treatise on the human ear, appears to have been the first anatomist who pointed out the fact, that the tensor and levator palati muscles take an origin from the Eustachian tube; further than this, he gave them the appellation of the muscles of the Eustachian tube, but he considered that their function is to keep the tube constantly open, his opinion being, that "if the tube is closed, the hearing is lost at once."

Most modern anatomists have described the muscles of the soft palate as taking their origin from the Eustachian tube; but they have not ascribed to them the functions of opening, or of otherwise affecting the tube.

The two muscles which open the tube in man are the tensor and levator palati.

The *tensor palati* muscle arises from the fossa at the root of the internal pterygoid plate, from the adjacent bone, from the outer surface of the superior cartilaginous lip of the Eustachian tube, and from the membrane forming its outer wall; the fibres from these sources pass downwards, form a flat muscle, which winds round the hamular process of the sphenoid bone, to be inserted into the aponeurosis of the palate, and into a ridge of the palate bone.

(c) Cyclopædia of Surgery, p. 23, 1841.
(d) Vergleichend-Anatomie uber das innere Echörorgan des Menschin und der Sangthiere, 1845, pp. 51.
(e) De Aure Humana Tractatus, 1735.

The *levator palati* muscle arises from the inferior surface of the petrous bone near the apex, and from the outer half of the under surface of the cartilaginous part of the tube; the fibres descend in contact with the inner half of the under surface of the tube, and are inserted into the aponeurosis of the palate, some of the fibres uniting with those on the opposite side.

The action of the *tensor palati* muscle, when it contracts, is to draw slightly outwards, and to keep on a stretch the membrane forming the outer wall of the Eustachian tube; the action of the *levator palati* muscle is to draw downwards, to keep tense the lower wall of the tube; and it will thus be seen that the combined action of the two muscles is to keep open the tube, by drawing the membrane forming its outer wall apart from the cartilage forming its inner wall.

As during the act of deglutition the tensor and levator palati muscles contract, it is evident that the Eustachian tube must be opened during the performance of this act; and inasmuch as there is no apparatus whereby the faucial orifice of the tube can be kept open, its lips fall together, and the orifice closes as soon as its muscles cease to act. During the few moments that the faucial muscles act, while the process of deglutition is being performed, air can either enter or make its egress from the tympanic cavity, so that it may always be of the same density as the outer air. The two reasons why the Eustachian tube is closed, except during the momentary act of deglutition, are, that the tympanum should be a closed cavity, so that the sonorous vibrations reaching it may be concentrated upon the membrane of the fenestra rotunda; and secondly, as specially pointed out by Dr. Jago, that sounds should not enter the tympanum from the fauces (f).

PATHOLOGICAL OBSERVATIONS.

Although from the preceding observations there can remain little doubt but that the faucial orifice of the Eustachian tube is ordinarily closed except during the act of deglutition, it is requisite to perfect hearing that the tube be pervious, and that there be a constant interchange of air in the cavity of the tympanum. If the Eustachian tube becomes impervious, the air that was in the tympanum at the time of the closure gradually disappears. It is not easy to decide whether it is absorbed, or whether, by a process of exosmose, it passes through the membrana tympani; but in a space of time varying in different cases from a few hours to a day or two, there is no doubt that the air in the tympanic cavity becomes partially exhausted. The effect is to produce an increased concavity in the external surface of the membrana tympani, the chain of ossicles is also forced inwards, the contents of the labyrinth are subjected to pressure, and a very serious diminution of the hearing power is produced.

The morbid conditions of the Eustachian tube found in 1523 dissections were as follow:—

Containing mucus	10
Containing mucus, lining membrane congested	2
Containing mucus, lining membrane thick	2
Lining membrane congested	5
Faucial portion, mucous membrane red and soft	2
Bands of adhesion connecting the walls	3
Stricture in osseous part	1
Stricture in cartilaginous part	2
Very large	2

The causes of obstruction of the Eustachian tube may be thus classified:—

1. At its *faucial orifice:* a thickening or relaxation of the mucous membrane.
2. At its *tympanic orifice:* thickening of the mucous membrane or a deposit of fibrin.
3. In the *middle part* of the tube: from a collection of mucus, a stricture of the osseous or cartilaginous portions, or from membranous bands connecting the walls.

1. Obstruction of the Eustachian tube at its faucial orifice takes place—

a. From thickened mucous membrane.

b. From relaxed mucous membrane.

a. Obstruction of the faucial orifice from thickened mucous membrane.—In these cases there is usually a history of enlarged tonsils, or of hypertrophy of the mucous membrane of the nose and fauces. If the obstruction occurs in a young person, it is common for the mucous membrane of the nose to be so thick as to offer some resistance to the easy passage of air, and to lead to the habit of breathing through the mouth. This habit is carried out at night to a marked degree, and the patient often snores loudly. Upon examination of the fauces the tonsils are sometimes found enlarged, and the mucous membrane of the fauces is thicker than natural. In the adult the latter condition is observed, but the tonsils are less frequently affected. The deafness usually comes on rather rapidly, often subsequent to a cold, and after remaining a certain time, it suddenly vanishes, when a loud crack in the ear is experienced. This melioration often accompanies the act of yawning, gargling, or any strong muscular effort of the fauces. The improved hearing, dependent upon the opening of the tube by its muscles, rarely continues long; sometimes the deafness returns in a few hours, in other cases it does not recur for a day. This variation probably depends upon the different periods which elapse before the air disappears from the tympanic cavity. The amount of hearing depends upon the quantity of air in the tympanum. Sometimes the patient requires speaking to loud close to the ears; at others he hears a distinct voice at a distance of two or three yards. The patient frequently complains of a sensation of weight or pressure on the ears; often this extends to the head, and a heaviness is experienced, also considerable depression of spirits. The latter symptom is at times very marked, but it entirely vanishes with the removal of the obstruction. It possibly depends upon the pressure exerted upon the contents of the labyrinth by the membrana tympani and ossicles being forced inwards. A peculiar symptom sometimes met with in this affection, for which I am unable to account, is the improvement which takes place during the temporary position of the head on a pillow, or even if it be turned round and kept looking backwards. Irritation is often complained of in the external meatus; sometimes the dermis of the meatus becomes much congested, and eventually pours out a discharge; in other cases, where the irritation is still greater, a polypus forms, and an increased quantity of mucus is secreted. When a patient presents himself for advice with obstruction of the Eustachian tube co-existing with polypus, or the sympathetic discharge from the meatus, unless the Medical man examines the case carefully he is apt to overlook the real disease, and to consider it an affection of the meatus only. In order to decide upon the nature of the case it is requisite to proceed to a careful examination of the patient.

Upon inspection of the membrana tympani, it will be found very concave, of a dull leaden hue, the surface having an unnatural glassy aspect, the triangular bright spot being larger than natural. Sometimes the membrana tympani is so much drawn inwards as to approach the stapes, which is distinctly discernible through it; in other cases, the membrana tympani is somewhat opaque, and its outer surface uneven and irregular.

THE EXPLORATION OF THE EUSTACHIAN TUBE.

In a paper read before the Medico-Chirurgical Society, in 1853, I pointed out a simple method of ascertaining whether the Eustachian tube was pervious, and this method, as a general rule, is successful, without having occasion to resort to the catheter. I have already shown that, during the act of deglutition, while the nose and mouth are closed, a small quantity of air is pressed through the Eustachian tubes into the tympanic cavities; this process is attended by a sensation of fulness in the ears. The entrance of the air into the tympanum can be distinctly heard by means of an elastic tube about 18 inches long, each end of which is tipped with ivory or ebony; this instrument I have styled the Otoscope. One end of it is

(f) An examination of the faucial orifice of the Eustachian tube in other animals is corroborative of the view above advanced. In *mammalia* the faucial orifice of the tube presents much variety both in structure and form. In the animals I have dissected belonging to the class *ruminantia*, there is an entire absence of cartilage at the orifice of the tube, and the aperture is guarded by a thin fold of plastic membrane; it is opened by the faucial muscles. In the *carnivora* the cartilage is prominent, and forms a distinct rounded projection. In the *rodentia* the orifice consists merely of a fissure in the mucous membrane of the fauces. In some of the mammalia the orifice is opened by the superior construction of the pharynx. In all the *birds* that I have been able to examine the Eustachian tube was composed of two distinct portions, the membranous and the osseous, and no cartilage entered into their composition. The membranous portion consists of a sac which is common to both ears, the upper extremity of which receives the two osseous tubes and the lower extremity opens into the cavity of the fauces posterior to the aperture of the nares. The muscles which open the Eustachian tube in the bird are rather the internal pterygoid, or small muscles distinct from the pterygoid, but accessory to them. The common membranous tube is situated between the internal pterygoid muscles, and the lateral surfaces of the tube are in contact with, and firmly adherent to, the inner surface of these muscles or their accessories, so that when the fibres are drawn from the median line the walls of the tube are separated, and a free communication exists between the tympanic cavity and the pharynx.

to be inserted into the ear of the patient, and the other into that of the medical man, who must hold both ends, taking care that no portion of the tube touches any neighbouring body. When the patient swallows a little saliva, the mouth and nose of course being closed, if the Eustachian tube is pervious, at the moment that he feels a sensation of fulness in the ear, the Surgeon will hear most distinctly a faint crackling sound, produced apparently by a slight movement of the membrana tympani. This crackling sound is that most usually heard; but in some instances, where the mucous membrane of the tympanum is thick, a gentle flapping sound will be heard in its place. If in a case of suspected obstruction of the Eustachian tube, the otoscope fails to reveal any sound during the act of deglutition; if no sound is heard when the patient makes a forcible attempt at expiration, when the mouth and nose are held tightly closed, and if the history of the case, the symptoms, and appearance, agree with those already laid down as appertaining to obstruction of the Eustachian tube, I think the Surgeon is justified in affirming that the tube is obstructed, and there is no occasion to resort to the use of the Eustachian catheter. There is no doubt but that in many cases a person is unable to force air into the tympanum, although the patent condition of the Eustachian tube is shown by the use of the otoscope during the act of deglutition; this may depend upon a peculiar arrangement of the lips of the tube, which causes them to be pressed together by the compressed air; in other cases the tube may be shown to be pervious by the patient forcing air into it during an attempt at expiration, while the act of deglutition, with closed nostrils, does not produce any sound appreciable by means of the otoscope; but it is very rare for an obstructed tube to resist *both* of these tests. I have, however, met with cases in which it has done so; but as the history of the case, the appearances and symptoms have concurred in showing that no obstruction of the tube existed, I have not thought it requisite to introduce the catheter. In certain cases the membrana tympani may be seen to move during an attempt at forcible expiration, although no sound can be heard; the patient should therefore always be asked whether he perceives any sensation in the ears during the above-named processes.

Is not the Eustachian catheter requisite in any case, as a means of diagnosis? In spite of its constant use by Surgeons in the country, in Germany, and in France, I am disposed to reply in the negative. By paying attention to the points above laid down, I believe that a case of obstruction of the Eustachian tube can always be diagnosed without the aid of the catheter. Respecting its use as a remedial agent I shall speak hereafter.

That the cause of obstruction of the Eustachian tube at its faucial orifice is the thickening of the mucous membrane, is shown by actual dissection, by the co-existent thickening of the mucous membrane in other parts of the fauces, and by the results of the remedial measures adopted for its relief. An opinion formerly obtained a certain amount of credence in the Medical Profession that enlarged tonsils frequently press upon and close the orifices of the Eustachian tubes. There can be no doubt but that this opinion is erroneous. In order to convince himself that it is so, the Surgeon needs only to make an examination of the relative position of the tonsil and of the trumpet-shaped extremity of the Eustachian tube; he will find the tonsil situated from an inch and a quarter to an inch and a half below the tube, he will find the tonsil placed between the palato-glossus, and palato-pharyngeus muscles, the latter muscle entirely separating the tonsil from the tube; and he will find the Eustachian tube close to the base of the skull, against the basilar process of the occipital bone, and surrounded by the tensor and levator palati muscles, the function of which is, as already shown, to open the tube. Repeated examinations have convinced me that even should the tonsil enlarge to its greatest possible and known extent, it never reaches the Eustachian tube, for, together with the enlargement of the tonsils, the palato-pharyngeus muscle also hypertrophies, and effectually separates the two organs; further still, in the cases I have seen, where the tonsils have been the largest, there has been no deafness, and this must have also occurred to other Medical men. Often in a case of obstructed Eustachian tube in one ear, the tonsil has been comparatively small on the deaf side, and on the opposite side, on which there has been no deafness, the tonsil has been extremely large. There is no doubt but that obstruction from hypertrophy of the mucous membrane of the faucial orifice of the Eustachian tube co-exists with enlarged tonsils, but the co-existence of the two affections must not be confused with cause and effect.

(To be continued.)

A COURSE OF LECTURES ON ORTHOPÆDIC SURGERY,

DELIVERED AT THE

Grosvenor-Place School of Anatomy and Medicine.

(ADJOINING ST. GEORGE'S HOSPITAL,)

By WILLIAM ADAMS, F.R.C.S.

Assistant-Surgeon to the Royal Orthopædic Hospital; Lecturer on Surgery at the Grosvenor-Place School; late Demonstrator of Morbid Anatomy, etc., at St. Thomas's Hospital, etc.

LECTURE XI.

(Continued from page 57.)

MECHANICAL AND PHYSIOLOGICAL TREATMENT OF TALIPES VARUS.

Modifications of the Scarpa's shoe—Objections to these modifications—Principle upon which an instrument for adult varus ought to be constructed—Diagram in illustration—The Author's apparatus.

Modifications of the Scarpa's shoe.—I cannot, within the limits of a lecture, describe to you in detail all the modifications of the so-called Scarpa's shoe, or what Scarpa called his second apparatus (a), which have from time to time been introduced by various Surgeons and Orthopædic authorities. In this country this apparatus has been modified by Dr. Little, Mr. Tamplin, the late Mr. Liston, and Mr. Le Gros Clark, and on the Continent by Stromeyer, Langard of Hamburg, &c., and some modifications have also been introduced in America. Some of these modifications have reference to the method by which flexion and extension is regulated from a lateral centre of motion corresponding to the ankle-joint; but the only one worthy of mention in this respect is that invented by Dr. Little, in which the foot portion of the apparatus can be set free at the ankle-joint, so that passive motion may be conducted. This is certainly a desirable object in the late stage of treatment, and one much neglected; but I have generally used the cog-wheel motion, and directed the nurse or mother to take off the apparatus, and employ passive motion once or twice a-day, according to the condition of the tendon, and the amount of ligamentous rigidity. A combination of the ordinary cog-wheel and a free-joint, to be used at pleasure, has lately been added to the Scarpa's shoe by Mr. Bigg, and I anticipate great advantage from its use. Many of the modifications, and those considered to be of the most importance, refer to the mode of everting the foot, and altering the plane of the sole, by elevating the outer and depressing the inner margins of the foot. In Mr. Clark's apparatus this is effected by means of a side-screw and free-joint placed below the flexion cog-wheel. In Mr. Tamplin's shoe, which is in general use at the Orthopædic Hospital, the same movement is effected by a lateral cog-wheel. (See *Medical Times and Gazette*, March 29, 1856, fig. 25.)

The defect in all these modifications appears to me to be, that they depress the inner margin of the foot much more than they elevate the outer; in fact, that they scarcely elevate the outer side of the foot at all; and this I consider to be one of the most important actions required. In Langard's apparatus, which I have never seen, I am informed by Mr. Bigg, whose foreman worked for Langard, that this movement is regulated by a cog-wheel placed behind the ankle-joint, corresponding to the centre of the heel, and connected by a horizontal bar with the lateral cog-wheel opposite to the ankle-joint. This arrangement would no doubt increase the uplifting force against the outer margin of the foot, in consequence of the increased range of motion in this direction; and I have recently adopted this idea in the Scarpa's shoe I employ. In Langard's apparatus, Mr. Bigg tells me the flexion and extension movement is re-

(a) Op. cit.

gulated by a cog-wheel placed in the usual position, viz. at the side of the ankle-joint; and the inversion of the anterior part of the foot attempted to be controlled by a lateral motion in the sole of the shoe. An apparatus, in which the centres of motion adopted in Langard's instrument are imitated, has been constructed by Mr. Bigg; but free-joints are used, and an elastic force employed, by means of a series of india-rubber rings ingeniously arranged. The constant pressure from the elastic force is apt to produce slough; but in slight cases, and with careful management, it would no doubt be efficient. In my opinion, however, the cog-wheels are preferable.

About two years ago, a gentleman brought to the Hospital an instrument, called a talipede, said to have been of American invention, in which a variety of movements emanated from a ball-and-socket joint placed behind the centre of the heel.

Thus, you perceive that ingenuity has been fertile in contrivances; but if the account I have given you of the anatomy of varus be correct, a little reflection will show you that none of these modifications are in accordance with the anatomical or mechanical conditions of the foot in this deformity. In nearly all the modifications which have been introduced, the foot is acted upon as a whole, the entire foot being everted from variously arranged mechanical centres of motion; and where subdivision of the foot has been attempted, as in Langard's apparatus, it has only been by placing a joint in the flat sole of the shoe, with the object of everting the anterior portion of the foot. But the plane in which this force is exerted does not correspond with the plane in which the anterior portion of the foot moves; and the fulcrum is still placed on the convexity of the foot. Now, I have already shown you that only the anterior two-thirds of the foot are concerned in the production of the somewhat complicated form of inversion characteristic of varus, and I have pointed out the ill effects which frequently arise from the fulcrum being placed on the convexity of the foot, so that you will at once perceive that all the essential errors of the Scarpa's shoe —when applied, or I would say misapplied, to the cure of adult varus—are retained in all the modifications which have been employed.

From an attentive study of the dissected specimen of adult varus, represented in the *Medical Times and Gazette*, September 6, 1856, (figs. 36, 37, and 38,) it was first made evident to me that there was no correspondence mechanically between the apparatus we constantly employ, viz. the Scarpa's shoe with a double cog-wheel (represented in fig. 25, *Medical Times and Gazette*, March 29, 1856), and the mechanical conditions of the deformed foot to be acted upon. My examination of this specimen, then, led me to invent the apparatus which I now exhibit to you. (See fig. 49.) I determined—1. To subdivide the apparatus, so that only one portion of the foot should be acted upon at a time. 2. To place the mechanical centres of motion as nearly as possible opposite to the anatomical centres of motion in the foot, so that the anatomy should be represented in the mechanical apparatus. 3. To transfer the fulcrum from the foot to the leg, thus combining all the advantages of the straight splint with the improved apparatus for the foot; and 4. To carry the apparatus up to the thigh, and have a free-joint at the knee, so that we might not only effectually steady the fulcrum, and prevent the possibility of the instrument twisting round the leg, and, as it were, following the foot, which the Scarpa's shoe does,—but that we might greatly increase the power of the instrument over the movements of the foot, without interfering with the freedom of motion at the knee-joint, as is done in the straight splint, and the thigh-trough above mentioned, in the apparatus used by Mr. Tamplin. These were the great principles which it appeared to me ought to be embodied in a scientific instrument for adult varus. I applied to Mr. H. H. Bigg, of Leicester-square, to construct such an instrument, and he succeeded entirely to my satisfaction. Every principle which the dissected foot suggested to me appeared to be completely carried out, and I applied this instrument, on the 1st June, 1854, to the case represented in figs. 50 to 54,—a case fully calculated, from its severity and the age of the patient, viz. twenty-six years, to test the value of any apparatus. I am glad to acknowledge the ability with which Mr. Bigg overcame all the mechanical difficulties, and the masterly style in which all the details of the instrument were executed. The coincidence of this patient applying to me for relief at the time when I happened to have the aluadle specimen of the dissected foot in my possession, was the immediate cause of my devoting to much attention to the construction of a new apparatus. I fel the more anxious to make a good cure of this severe adult case, because I was the third Orthopædic Surgeon of this metropolis who had been consulted. One had promised a cure, but on terms as to residence, time, etc., which could not be readily acceded to; and the other had altogether refused the case, as one admitting only of very partial relief.

The principles upon which the apparatus above alluded to, and represented in fig. 49, was constructed may perhaps be rendered more easily intelligible by reference to the following diagram, in which an outline of the dissected foot—figs. 36, 37, and 38—is represented, and the mechanical forces employed are also indicated.

Fig. 48.

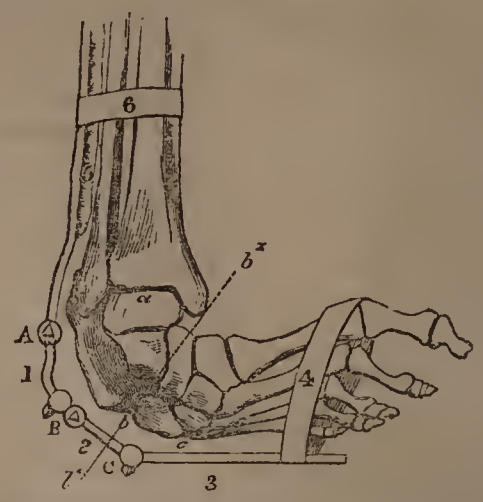


Diagram illustrating the construction of the apparatus for adult varus represented in Fig. 49.

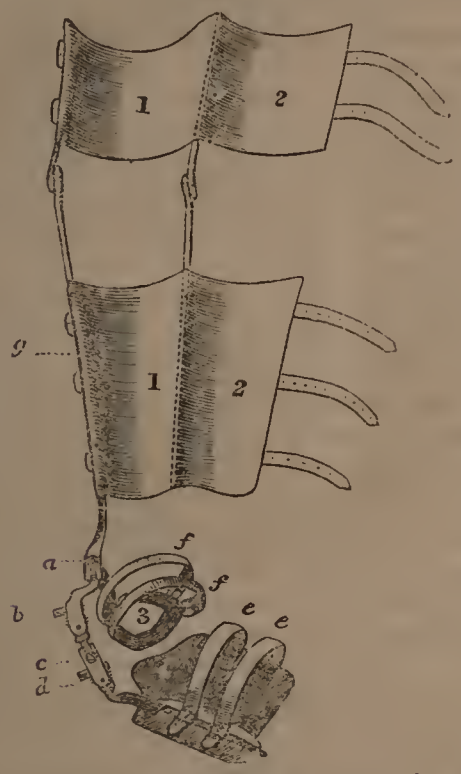
The dotted line *b** intersects the great transverse tarsal joint,—between the astragalus and os calcis, and the navicular and cuboid bones, —which in the club-foot has an oblique direction, and indicates the line of separation between the anterior and posterior divisions of the foot, which move in different planes as above described. A. The first centre of motion, corresponding to the ankle-joint, *a*. Flexion and extension only allowed at this joint. B. The second centre of motion, corresponding to the transverse tarsal joint, *b*. This is a double centre of motion; the first cog-wheel moving in the direction of inversion and eversion, the second in the direction of flexion and extension, and especially useful in uplifting the outer border of the foot, and overcoming the rotation backwards of the cuboid and outer metatarsal bones. C. The third centre of motion, corresponding to the articulations between the tarsal and metatarsal bones, *c*. Inversion and eversion only allowed at this joint, which is placed in this situation for the purpose of assisting the lateral cog-wheel at B, and to allow of the instrument being more accurately adapted to the curved form of the foot, rather than from the existence of any amount of motion at the tarso-metatarsal articulations. 1, 2, and 3 indicate the levers moved by the cog-wheels at the above-described centres of motion. 4 indicates the situation and direction in which the force is exerted on the foot to produce eversion. 5 indicates the fulcrum on the outer side of the leg, or point of resistance to the everting force employed against the foot from the cog-wheels at B and C. The pressure is diffused along the outer surface of the leg, between which and the side-iron of the instrument a long soft pad is placed. The action is the same as that of the straight outside splint, but may here be combined with the uplifting force. 6 represents the band and trough by which the fulcrum is retained in its position.

The instrument itself, the action of which the above diagram is intended to illustrate, is represented in fig. 49.

Now, in the construction of this instrument, I wish particularly to direct your attention to the following points:— 1st. The division of that part of the instrument applied to the distortion of the foot into two portions, one adapted to the deviation of the anterior portion of the foot as above described, and the other to the deviation of the posterior portion of the foot. 2nd. The four cog-wheels, *a b c d*, arranged as described in the diagram, fig. 48, and moving alternately in rectangular planes. As these are made to act upon short levers which can be bent in any direction, the apparatus can be accurately adapted to the curved form of the foot; and by an oblique sole-plate, 4, it can be adapted to the most severe case of adult varus, as in figs. 50 to 54, in which the aspect of the sole of the foot was upwards and backwards. 3rd. The uplifting movement applied to the outer border of the anterior part of the foot in a semicircular direction, by which the rotation of the cuboid bone, and two outer metatarsal bones, is overcome at the same time that the anterior portion of the foot is being everted. 4th. The situation of the fulcrum on the outer side of the leg. By removing the pressure from the convexity of the foot, the possibility of producing sloughs from pressure is

altogether avoided. The liability to produce sloughs from undue pressure is certainly one of the greatest objections to the Scarpa's shoe, and the complete removal of this danger one of the greatest merits of this new apparatus which I now introduce to your notice. 5th. The addition of a leg and thigh-trough, with a free joint at the knee to fix the fulcrum, and thus increase the power of the instrument over the foot, without producing a stiff-knee, as in Mr. Tamplin's leg-trough.

Fig. 49.



Mr. Adams's instrument for adult varus, and for the most rigid cases in children.

1, 1. Leg and thigh metal-troughs, with a free hinge-joint corresponding to the knee. 2, 2. Leather which folds over the leg and thigh, and is attached by means of straps and buckles to the outer sides of the troughs. 3. Heel-piece, composed of two pieces of steel arranged in an elliptical form, depressed on the outer side, and rising nearly to the inner malleolus on the inside. This is connected with the short, bent, rectangular lever in which the cog-wheel *a* is cut, so that it may be controlled by the movements of the latter. 4. Oblique sole-plate, which in the construction of the instrument is accurately adapted to the inclination of the sole of the foot. The outer or inferior border of the foot is received into the angle between the sole-plate and the descending piece of iron, by which the latter is attached to the end lever passing along the convexity of the foot. *a*. Cog-wheel corresponding to the ankle-joint, and regulating the movements of flexion and extension. Used principally to cure the equinus by flexing the whole foot, after the inversion of the anterior part of the foot has been overcome. *b*. Cog-wheel corresponding to the transverse tarsal joint, or a little behind it, placed laterally and acting in a plane at right angles to that of *a*, used to overcome the inversion of the anterior portion of the foot from the transverse tarsal joint. *c*. Cog-wheel also corresponding to the transverse tarsal joint, or a little in front of it, and acting in the same plane as *a*. Used to uplift the outer margin of the foot. In doing this, while the foot is in its inverted position, it acts through a bent lever (regulated by *d*), and consequently by means of the sole-plate (4), raises the cuboid bone, and with it the 4th and 5th metatarsal bones in a curved direction upwards; thus overcoming the rotation backwards of these bones. This uplifting of the outer border of the foot in a circular direction can also be gained with increased mechanical advantage—in consequence of the increased length of the bent lever—by using the cog-wheel *a*, but both are useful in an adult case. *d*. Cog-wheel, corresponding to the tarso-metatarsal articulations placed laterally and acting in the same plane as *b*. Used to increase the adaptation of the instrument to the curved form of the foot, and to assist cog-wheel *b* to evert the anterior portion of the foot. These cog-wheels act upon the foot through a series of levers which pass along the convexity of the foot, and to the end one of which the sole-plate is attached. These levers are best shown in the diagram, fig. 48. *e. e*. Two straps attached to the sole-plate, 4, by which the anterior part of the foot is retained in the sole-plate, and the force applied to the inner margin of the foot. One corresponds to the ball of the great toe, and the other to the metatarsal bone of the great toe, so that the pressure can be varied alternately on these two points. *f. f*. Two straps attached to the heel-piece. One crosses the ankle-joint obliquely from before backwards, and the other crosses the tarsal bones a little in front of the ankle-joint, acting more directly downwards upon the arch of the foot. *g*. A pad placed along the outer side-iron of the leg-trough, to prevent undue pressure. It is necessary to insert extra padding along the outer side of the leg, from about three inches above the outer malleolus, during the eversion of the foot. Neither the iron nor the pad must be allowed to touch the lower extremity of the fibula.

This instrument is especially adapted to the more severe forms of varus in the adult; and I believe by its use cases may be successfully treated at a much more advanced age, and in a much shorter time, than the deformity could be cured by any other mechanical means. It may also be employed with equal advantage in youth, and in all cases presenting the complications which I have described as taking place after the deformed foot has been used in sustaining the weight of the body. In a modified form, *i. e.* with only two cog-wheels *a* and *b*, instead of four, I have advantageously employed it in the severest forms of infantile cases; but there are very few of such cases in which it is necessary to depart from the plan of procedure already described.

In reference to the use of this instrument in the more severe forms of adult varus, I should mention that as much of its power of adaptation depends upon the oblique sole-plate, the angle of which must be accurately adapted to the obliquity of the sole of the foot to be acted upon, it is necessary to have a second sole-plate, of a simple flat description, answering to the sole-plate of the Scarpa's shoe, to be employed in the second stage of treatment, *i.e.* the cure of the equinus, after the varus has been completely overcome. In this stage it acts just like the Scarpa's shoe, and if no tendency to inversion remains, it is a matter of indifference which apparatus be used; but practically I found in the case, figs. 50 to 54, my my own apparatus more effective for retentive purposes, on account of its firm connexion with the leg.

It has been objected to the mechanical construction of my instrument, that from the absence of a fulcrum on the convexity of the curve, and from the heel not being fixed, the curve formed by the foot in the direction of its length would not be unfolded, but that the foot, still preserving its curved form, would be, as it were, bodily everted, and merely altered in its relation to the leg. This effect, however, I have not found result in practice. The fact is, that the mechanism of the deformed foot is much more complex than mere mechanicians, or those who merely study its external form, might suppose. In the deformed foot, the everting force employed by my instrument, acting from the fulcrum above described on the outer side of the leg, is resisted laterally by the malleoli of the ankle-joint, which hold the astragalus with sufficient firmness; and if any lateral movement inwards of the os calcis should take place (and I have not satisfied myself that such does occur), it would be advantageous rather than otherwise, as this bone lies obliquely in its position with respect to the bones of the leg, so that its tuberosity is directly behind the fibula, instead of occupying a central position. This merely mechanical objection, therefore, is answered by the result of experience, and by the explanation I have given you.

With respect to the position of the fulcrum, I would merely observe, that to place it against the cuboid bone is decidedly wrong, because this bone is situated in front of the transverse tarsal joint—the centre of motion from which the inversion takes place—and is itself displaced inwards. This error was committed by Scarpa, in his apparatus for varus, represented in fig. 47; but as he does not appear to have contemplated curing this deformity above the age of 10 or 12 years, the instrument he employed was probably efficient, except in the most severe cases. It is remarkable that the same error has been perpetuated by all those who use Scarpa's second apparatus, or the so-called Scarpa's shoe to overcome the eversion. To place the fulcrum on the os calcis alone is not very practicable, and the difficulty and force required to fix the os calcis laterally, so as to resist the everting force, would render necessary such pressure on the outer side as would almost certainly produce slough, and this it has been one of my principal objects to avoid.

[To be continued.]

ORIGINAL COMMUNICATIONS.

ON HYPERTROPHY OF THE LEFT VENTRICLE OF THE HEART,

IN RELATION TO DISEASE OF THE AORTA AND ITS BRANCHES.

By W. S. KIRKES, M.D.

Fellow of the Royal College of Physicians; Assistant-Physician to St. Bartholomew's Hospital.

Hypertrophy of the left ventricle, or of any other cavity of the heart, on whatever cause it may depend, ought to be viewed in relation not only to the mechanical obstruction

which has occasioned it, and which it is beneficially designed to overcome, but to various other results, which have no concern at all with the primary causes of it, and, instead of being beneficial, are essentially injurious. For it must be evident that, while the real object of the hypertrophy is to overcome an impediment to the circulation at some given part, and thus be a gain to the system, the excessive force resulting from such hypertrophy will, when it falls upon parts in which no such impediment exists, be likely to inflict damage upon them. Without entering into the general ill effects of hypertrophy, I wish now to draw attention only to the arterial system, and to show that the aorta and its branches are, under some circumstances, especially liable to be damaged by an hypertrophied left ventricle. This damage is perhaps most likely to ensue in those cases in which there is no valvular disease to prevent the full force of the hypertrophied ventricle being expended upon the arterial system. Advanced disease of the kidney furnishes the best illustration of this. One of the earliest and most constant sequences of renal disease is hypertrophy of the left ventricle,—an hypertrophy especially remarkable, since it is usually associated with wasting of nearly all other tissues. This fact, pointed out by the great discoverer of Bright's disease, has been abundantly substantiated by subsequent observers, as has also the equally important fact, that such hypertrophy is frequently independent of valvular disease. Now, the co-existence of an hypertrophied left ventricle with a healthy state of the valves—*i. e.* with free exit to the blood at the aortic opening, and perfect closure of the mitral orifice during the systole—will almost necessarily determine that the whole force with which the thickened ventricular walls contract will fall directly upon the blood in the arterial system, and thus subject the walls of the arteries to an amount of strain and pressure far exceeding that to which they are naturally accustomed. This liability of the arteries to over-distension and consequent injury, will be more evident when we consider that the blood within them, besides being thus subjected to unnaturally strong impulsive shocks from the ventricle, is, at the same time, greatly impeded in its exit from the other extremity of the arterial tree, by the unusual obstruction seated in the capillary system—an obstruction reasonably believed to be dependent upon the increased difficulty with which, when impregnated with the elements of urinary excretion, the blood traverses the capillary channels. Under such circumstances, the arterial blood will be under the continual influence of two unnaturally great causes of pressure, excessive ventricular impulse at one end, and impeded capillary current at the other; and it can scarcely be expected that the walls of the vessels should escape over-distension and consequent liability to structural change. The coats of the aorta, and of arteries generally, like most other parts, when called upon to discharge an unusual amount of natural function, probably undergo a kind of healthy hypertrophy, or simple increase of their normal texture. The increased growth of muscular tissue, under the stimulus of additional action, furnishes the most obvious illustrations of hypertrophy, but there are equally well known examples in other tissues, as shown in the thickened cuticle of the hand in those accustomed to rough manual work, in the great increase of one kidney when the other is permanently damaged, and, what is especially to the purpose in the present inquiry, the increase in calibre and in thickness of the walls of arteries distributed to parts undergoing a temporary or permanent enlargement, as the impregnated uterus, the secreting mammary gland, and tumours and other morbid growths. There can, therefore, be no good reason to doubt that arterial tunics, when subjected to unusual and prolonged extension may undergo a compensating increase of thickness and strength by addition to their natural texture—in other words, a true hypertrophy. That such may occur was especially suggested by the case of a child in which, with well-marked hypertrophy of the left ventricle, dependent, apparently, upon atrophy of one kidney, I found the coats of the aorta remarkably thickened, strong, elastic, free from deposit, smooth on the interior, and evidently only greatly increased in healthy texture.

For a time, probably, the arterial walls increase in thickness and strength in about the same ratio as the cause of the additional strain upon them, just as the left ventricle continues to hypertrophy in proportion as obstruction at the aortic orifice grows greater. If the original evil is brought to a stand still, the arterial walls may cease to increase, and all may be well. But if, as is the usual tendency in renal disease, the mischief progresses, and at the same time the powers of nutrition become impaired, not only may the arterial coats cease to hypertrophy, but may even degenerate into fatty or calcareous matter, just as an hypertrophied ventricle often similarly degenerates, as the constitutional powers fail, in the later stages of cardiac disease. My object in the present paper is to show that many examples of extensive disease of the coats of the aorta have originated in and are dependent upon prolonged overstraining of their walls produced by an hypertrophied left ventricle, especially by such hypertrophy as ensues in advanced renal disease, and is independent of valvular obstruction. The suggestion, with many arguments in support of it, that arterial disease may result from prolonged over-distension of the walls of the vessels, originated, I believe, with Professor Dietrich, of Erlangen; but, as this view is little known in this country, where a different explanation of the disease is generally adopted, the endeavour to demonstrate its general correctness, while at the same time attention is drawn to some other collateral points of interest, may not be without value.

In a former communication (a), I attempted to prove, while pointing out the relations manifestly subsisting between sanguineous apoplexy and chronic disease of the kidney, that the heart is the medium through which the affection of the kidney becomes instrumental in inducing the fatal cerebral hæmorrhage; in other words, that the renal disease, by inducing hypertrophy of the left ventricle, leads to dilatation, disease, and ultimate rupture of the cerebral arteries. The circumstances under which the vessels of the brain become diseased, and the effects apt to follow from such disease, being points of considerable importance in relation to the pathology of the brain, I subsequently thought it advisable to bring forward, in support of the view then stated, such information as might be furnished by an examination of other arteries besides those of the brain in cases of advanced renal and cardiac disease. The principal objects in this supplemental examination were to determine—1. If disease of the arteries of the brain is usually associated with disease of arteries elsewhere; 2. If concurrent disease of the kidney and heart, which had been almost always found to exist when the cerebral arteries were diseased, existed also in the majority of the cases of arterial disease generally; and, 3. If the sum of the evidence afforded by an examination of all the circumstances attending extensive disease of the arterial system supported the view that disease of the coats of arteries in general is, in the majority of cases, the result of prolonged overstraining consequent upon hypertrophy of the left ventricle.

The first portion of the inquiry was readily determined, for out of 34 cases in which, after death, I had found the arteries of the brain diseased, there was coincident disease of the aorta in no less than 33, the disease in the majority of the cases being extensive. It may be inferred, therefore, that disease of the arteries of the brain, at least of the larger trunks, is not so much a local matter as a change dependent on a distant cause, which frequently manifests its action on other parts of the arterial system also.

For the second portion of the inquiry, I tabulated 225 cases, in which either the arteries, heart, or kidneys, were unmistakeably diseased, and thus had the opportunity of observing the relative frequency with which these parts are associated in their morbid conditions. Out of this number the coats of the aorta were found extensively diseased in 60 cases, slightly diseased in 93, making a total of 153. The state of the kidneys in these 153 cases of arterial disease, was the subject of the first part of the analysis. The result was as follows:—

Aorta.		*Kidneys.*	
Much diseased	60	Diseased	38
		Apparently healthy	16
		Not examined	6
Slightly diseased	93	Diseased	54
		Apparently healthy	38
		One healthy, other diseased	1
	153		153

The kidneys were diseased, therefore, in 92 out of the 153 cases of arterial disease, the proportion being greatest among those in which the arteries were most diseased; and, it may be added, the notes of all the fatal cases of renal disease I have dissected, show that the arteries, when examined, were almost

(a) Medical Times and Gazette, December, 1855.

invariably found diseased, often extensively so. Of the slight cases of arterial disease it should be observed that the affection was usually noted as consisting of "scattered yellow deposits in the aorta." This small amount of arterial mischief is so common, and associated with so many and such varied morbid conditions of other organs, that with the present objects it will be better to omit any further consideration of it, and to limit the investigation to the 60 cases in which the disease was extensive and well marked. In almost all these 60 cases, the coats of the aorta were more or less thickened, tough, and rigid, sometimes wrinkled on the interior; the calibre of the canal, too, was usually larger than natural. In some, this thickening and rigidity, with dilatation, constituted the only notable change, there being little or no evidence of any morbid deposit within the walls. In the majority, however, there was, in addition, more or less abundant deposit, consisting either of soft, yellow, atheromatous material, or earthy plates, or, as usually happened, of the fatty and calcareous material combined. In others, again, together with the thickened walls and copious deposit, the aorta had pouched out into one or more aneurismal sacs. The thickening of the coats, accompanied, as it usually was, with dilatation of the canal, is especially noticeable, since it supports the opinion that the arteries, previous to degenerating, acquire additional strength by a kind of healthy hypertrophy.

Out of the 60 cases, then, in which the coats of the aorta were thus more or less extensively changed from their normal condition, the kidneys, as just said, were diseased in 38,—nearly two-thirds,—apparently healthy in 16, not carefully examined in 6. The close relation between these two morbid states is therefore obvious. With respect to the disease affecting the kidneys, it should be observed that, with scarcely an exception, the organs were in an advanced stage of granular or fatty degeneration, usually the former. With respect to the 16 cases in which they are stated as apparently healthy, it should be observed, that a re-perusal of the notes of their condition renders it probable that several of them were far from being in a state of health, though the characters of disease were not sufficiently obvious to justify the inclusion of the cases among those in which the renal disease was unquestionable. In a few, however, the kidneys were undoubtedly healthy,—a fact which militates against the view that the diseased state of the arteries and kidneys are due to one common constitutional cause.

From this portion of the analysis, then, it may be concluded that disease of the coats of the aorta, especially if extensive, is very frequently, but not invariably, associated with disease of the kidney. This association did not escape the keen observation of Dr. Bright, and it has been noticed by several subsequent observers. Doubtless it would have been found even more constantly, had attention been specially directed to it.

To ascertain the probable cause of the arterial disease, the analysis was carried a step further, and an inquiry made into the state of the heart in these 60 cases. The result was very striking, for, with but one exception, the left ventricle was hypertrophied in every case, both of those in which the kidneys were, and those in which they were not shown to be diseased. And, it may be added, a like hypertrophy existed also in a very large number of the cases in which the arteries were slightly diseased. Hence it appears certain that the relation between hypertrophy of the left ventricle and disease of the aorta is even closer than that between the latter and disease of the kidney. The experience of Dr. Latham is quite in accordance with this. Speaking of arterial disease, he says:—"In looking over such records of cases as I possess, it is remarkable in how large a proportion of them I find this condition of the arteries coincident with hypertrophy and dilatation of the left ventricle."(a) Dr. Wilks's observations, too, are equally confirmatory:—"In no one case of Bright's disease, where hypertrophy of the left ventricle has existed, have I failed to find diseased arteries; on the other hand, I have witnessed, though seldom, cases of diseased arteries and hypertrophic heart, without the presence of diseased kidney." (b) As to the nature of the relation thus obviously subsisting between arterial disease and hypertrophied left ventricle, different opinions are entertained. The one generally adopted, I believe, is that advocated by both Dr. Latham and Dr. Watson, namely, that the hypertrophied ventricle, instead of being the cause is rather the consequence of the arterial mischief. (c) It is difficult, however, to understand how this can be; how, namely, disease of the arterial coats can excite hypertrophy of the left ventricle. It is said to do so by weakening the elasticity of the coats, but it is not explained how such weakened elasticity can induce hypertrophy. What is the chief purpose of the elastic coat, beyond the additional strength and power of resistance it gives to the walls? Clearly it is that of breaking the shock which the column of blood in the arterial system would be subjected to at each ventricular contraction, if it were within tubes formed of unyielding walls. In health, when the coats of the aorta are duly elastic, part of the force of the ventricular contraction is primarily expended in distending the arteries; the other part is at once employed in moving on the mass of blood. On the cessation of the ventricular contraction, the stretched arteries recover their former state, and then all the force which had been engaged in distending them—but no more than that force—is restored to the service of the onward current; in other words, this portion has only been held in reserve for the double purpose of lessening the impulsive shock which the column of blood would have otherwise received at each contraction of the ventricle, and of equalizing the arterial current by converting the successive interrupted accelerations of the stream into a continuous onward movement. No additional force, it should be remembered, is given out by the larger arteries, they have no contractile power, or next to none, by which they could of themselves accelerate the arterial stream; all they have is acquired from the ventricular contraction, and this they simply restore when the ventricular contraction ceases. This absence of active self-generating power in the elastic tissues of the aorta renders it difficult to understand why, when the coats are diseased and their elasticity impaired or lost in consequence, the left ventricle should necessarily become hypertrophied. There is no additional impediment offered to the arterial circulation by the coats of the arteries being inelastic. The mere deficiency of elasticity, therefore, does not entail upon the ventricle any greater employment of force to move the column of arterial blood. All that will result from such imperfect elasticity of the walls will be, that much less of the force which in health has to distend the arteries will be required for that purpose, this hitherto reserved force now being employed directly in moving on the mass of blood. The effect no doubt is most injurious; for, deprived of the equalizing power of properly elastic arteries, the blood is sent along with unbroken shocks, to the great detriment of the smaller arteries, and the damage of delicate organs. Still it probably does not require additional force to move the arterial column of blood, and there is, therefore, no additional strain upon the left ventricle, and no likelihood of its necessarily becoming hypertrophied. It is, therefore, as already said, difficult to understand why it should be thought that disease of the coats of the aorta should be the cause rather than, as I believe, the effect of hypertrophy of the left ventricle. By adopting the latter view we have, too, a ready explanation of the arterial disease, which, in the other view, would still have to be sought for.

(To be continued.)

(a) On Diseases of the Heart, vol. ii. p. 226.
(b) Guy's Hospital Reports, vol. viii. 1853, p. 202.

(c) See, especially, Dr. Latham's Lectures on Diseases of the Heart, vol. ii. p. 209; Dr. Watson's Lectures on the Practice of Physic, vol. ii. pp. 228 and 293; and Dr. Todd's Clinical Lectures on the Nervous System, 2nd edition, p. 115.

OBSERVATIONS
UPON THE TREATMENT OF CERTAIN
DISEASES OF THE KNEE-JOINT BY THE OPERATION OF RESECTION.

By P. C. PRICE,

Junior Surgeon to the Great Northern Hospital, Surgeon to the Metropolitan Infirmary for Scrofulous Children at Margate, &c.

In a paper which I had the honour of communicating to the Medical Society of London, at the commencement of the present year, I endeavoured to attract more general attention to the operation of removal of the knee-joint, and to point out some features of interest connected with various

forms of disease of the articulation which, with advantage to the patient and to the credit of surgery, could be removed with comparatively slight mutilation of the body.

The observations I then offered were essentially of a practical character, and were advanced with the view of destroying prejudices held by many, whose concurrence was needed to enable a more general acceptation of the operation, and to curtail (in the words of the younger Moreau) "that destructive routine of ordinary practice, that cuts off a limb, as it were, by storm, which, by an operation wisely bold, might have been saved." Those diseases commencing in the synovial membrane, and subsequently involving cartilaginous, fibrous, and bony structures, were shown to be frequently well adapted to the operation, provided no very acute symptoms or any decided constitutional diathesis prohibited its adoption.

But there is a class of cases, unfortunately of common occurrence, in which removal of the articulation on many occasions becomes questionable. I allude particularly to those instances in which great destruction of osseous texture accompanies or precedes the mischief immediately affecting the articulation. It is well known that this articulation may become involved in various ways. The disturbance may originate in the tissues external to the joint, and subsequently affect the integrity of the apparatus; or, may primarily obtain a footing in the synovial, cartilaginous, or fibrous structures; or, lastly, commence in the cancellous network of the ends of the bones entering into the formation of the joint. It is my intention on the present occasion to confine my remarks to some of those affections which primarily involve the spongy structure of the extremities of the tibia and femur, and, secondarily, include the joint; or which, having originated in the interior of the articulation, subsequently affect to a considerable extent the bony structure. In by far the larger proportion of diseases of the knee-joint which have fallen under my own observation, the mischief has apparently originated in the synovial membrane; and this would appear from general experience to be the most common *locale* for its commencement. Inflammation, however, of a specific form not unfrequently attacks the spongy structure of long bones, and such inflammatory changes are characterised by symptoms which strongly indicate a scrofulous or tuberculous habit of body, and exhibit a local manifestation of the disease. Of late years many excellent pathologists have shown that this form of disease is by no means of uncommon occurrence, appearing especially in the children of the poor, who for the most part are ill-nourished and delicate, inheriting, perchance, a specific disposition from their parents, which the more readily encourages the outbreak of the disease. This morbid affection, however, is by no means peculiar to children, and I am inclined to believe that the joints of adults are more frequently destroyed in this way than is generally imagined. As far as I am aware, no surgeon, whose name is associated with removal of the knee articulation, has offered any special comments upon the pathology of this affection, as elucidating and illustrating features of interest in connexion with the operation; and it may not, therefore, be devoid of advantage to inquire how far instances of this disease are amenable to the great conservative proceeding? It is, perhaps, of little moment, in considering the question, to determine whether in the majority of cases the disturbance primarily commences in the spongy texture, or secondarily implicates that structure; neither is it of importance to discuss the exact analogy of strumous deposit in bone to genuine tubercle, as the interest of the subject may be better consulted by considering the disease under the character of a morbid material which partakes more or less of the nature of struma as developed in other localities of the body.

The infiltration of the spongy structure of bone by this strumous material may be of two distinct kinds, circumscribed and diffuse; and it is all-important that these varieties be duly understood by the Surgeon who lends encouragement to the modern proceeding of resection.

Firstly, with regard to the diffuse variety. The morbid process is at its commencement ushered in by a general low inflammatory state of the open network of the bone, the surface so affected appearing congested, and of a dark red colour, owing to the medulla contained in the bony cells being mixed with blood. This condition may sometimes be recognised by the increase of temperature about the parts so involved, and sensation which, if not amounting to absolute pain, is sufficient to attract not only the fears of the patient but the attention of the surgeon. Both these symptoms may obtain in degree, according to circumstances; and I have noticed on several occasions that the disposition to annoyance is more marked in patients of a plethoric habit of body than in those who labour under a more sallow and cachectic disposition.

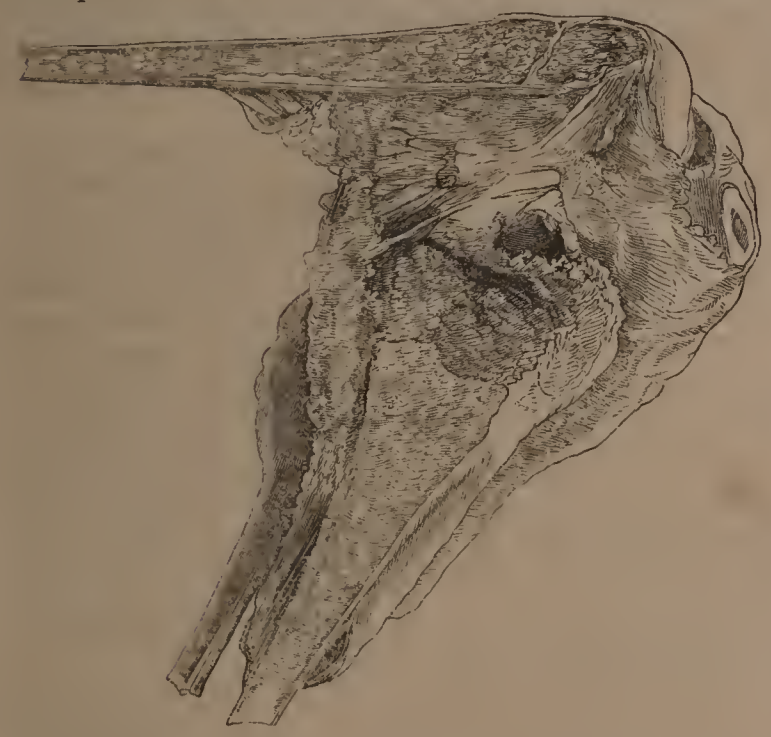
If this condition into which the affected parts have fallen be recognised, it is not impossible, by judicious treatment, to arrest the further development of the disease; but should it continue, organic changes soon follow, which rapidly involve the integrity of different structures. When this inflammatory condition is well established, the cells of the bony structure not only appear congested, but subsequently contain a substance which is more or less fatty, oily, lardaceous, or gelatinous in consistence; and, provided the morbid action has obtained to the medullary cavity, the medulla itself may become the seat of disease. The bony network itself soon becomes implicated, inflames, expands, and softens, and to such an extent, that it may easily be broken down by the slightest pressure.

This further increase of the disease is accompanied by a chemical alteration in the constituents of the bone. The earthy material, which in health forms so considerable a portion of the osseous composition, greatly diminishes, and in some instances almost entirely disappears. Not only are the parts so involved deprived of their inorganic material, but the compact structure immediately surrounding them likewise becomes affected, and converted into a mere shell, possessing apparently little similitude to normal bone. The periosteal covering also sympathises, thickens, and loosens in its attachment. When this morbid affection is confined to the extremity of the shaft, the further changes that may take place are dependant on and modified by circumstances. The disease may appear suddenly to be arrested, and to call for little aid from the surgeon. If, however, the inflammatory state of the parts has somewhat subsided, liquefaction of the tuberculous or strumous deposit may slowly and gradually take place, accompanied with ulceration, which destroys the cellular structure of the bone, and advancing towards the more compact, perforates the already thinned walls. But it not unfrequently happens that the deposition of the foreign material leads to more extensive and rapid mischief. Suppuration may supervene upon a fresh attack of inflammation, and with celerity not only destroy contiguous parts, but give rise to an amount of suffering and distress which affects the already debilitated constitution, and demands the adoption of decisive measures. When either or both of these conditions have obtained, a communication with the surrounding soft tissues is soon effected. The irritating matter being voided into cellular and other structures, favours the formation of abscesses, which, when opened or bursting of themselves, admit the exit of a discharge which is composed of the softened strumous material, more or less mixed with blood, pus, and the debris of carious or necrosed bones. It would appear from the above description, that this form of disease may exist for some time, or even run its course, without including the neighbouring articulation; but, unfortunately, it is seldom that the joint escapes the destructive process. At an early period the articulation begins to sympathise, and ere long becomes seriously affected. When the first stage of the disease is well established, and the foreign material which has been deposited in the cancellous texture begins to soften, the boundaries of the joint become invaded. By changes degenerative and destructive the cartilages disappear, and permit the extrusion of the morbid contents of the diseased bone into the joint cavity. The synovial membrane, if not already involved, thickens, and greatly alters in structure; its functions are destroyed, and, instead of fulfilling its proper duties, becomes the cause of more serious implication. The ligaments, put upon the stretch by the increasing size of the joint, soften, and permit deformity and luxation to take place. The presence of irritating matter in the closed cavity soon leads to suppuration, and perforation of its walls. Thickening and abscesses include cellular and other tissues, and ere long circuitous channels are formed, with external openings, which admit the escape of the cause of so much disturbance.

The accompanying woodcuts, copied by the able pencil of my friend, Dr. Westmacott, from the knee-joint of a little girl, destroyed by this form of disease, which I was compelled to remove by amputation of the thigh, well illustrate many of the features to which I have briefly alluded. The disease, in

this instance, commenced in the head of the tibia, and succeeded in converting that bone into a vast cavern, destroying to a great extent the osseous walls, and disorganising the joint, by implicating the articular cartilages and other structures.

The same form of disease existed in the lower end of the femur; but, as is well shown, the articular extremity of the bone is unimpaired, while the shaft to some extent is rendered carious by ulceration proceeding from within, with extensive alteration in its periosteal covering. The arrest of development in all three bones is likewise clearly perceptible.



Such, in general, are the stages through which this form of the disease may run, and the question of interest is, how far this affection is curable? Mr. Stanley has well remarked, in his excellent treatise on Diseases of the Bones, "that the disease is perfectly curable only in its first stage, when the changes in the bone have not passed beyond those of simple inflammation;" and I think general experience will not negative the assertion, that the reproductive process never follows the implication and destruction of bone by this diffuse form of strumous disease. The disease having passed to that stage which is incurable by nature, it may remain a question as to how far any operation short of removal by amputation is of any avail? I fear even the most strenuous advocates for resection of this articulation can find but little encouragement to adopt a proceeding, the ultimate result of which must, in all probability, prove futile to the patient, and deleterious to the cause of conservative surgery.

Of all morbid affections, perhaps, there is no one class more difficult of correct appreciation than diseases of joints. Daily experience proves how utterly impossible it is, on many occasions, to form a right estimate of the extent to which both hard and soft tissues are involved; and to point out the exact seat of disturbance, or to diagnose the nature of the affection which calls for so serious an interference as amputation or resection.

I have not unfrequently seen limbs removed for an amount of disturbance in the joint which was deemed irreparable prior to being amputated, and more frequently I have witnessed the operation on occasions in which the amount of disease was supposed to be much more trivial than subsequent examination showed. Whenever, therefore, there is the least doubt as to the nature and extent of disease in a condemned joint, I conceive the Surgeon will be but acting with discretion in first obtaining a clear view of the interior of the articulation prior to making up his mind as to the nature of the operation he is about to perform. Old prejudices must be done away with, and ancient practices expunged. The time has arrived when routine, so detrimental to the cause of humanity, must be abolished, and customs, doubtless excellent in their day, must no longer remain unquestioned. As improvements daily take place in the character of surgical instruments, so with the improvement of the machine should be the advance in progress of the motive power.

Many, I know, will and do object to what may seem an unnecessary prolongation, and a somewhat new innovation to the steps of an operation, and will argue that such a proceeding is fraught with additional risk to the patient. But such fears are more imaginary than real. Mr. Butcher has well considered this point in his last excellent memoir, "On Excision of the Knee Joint," and since its publication it has fallen to my lot to become acquainted with two more cases, in which the state of the joint was well examined, and actually resected in the hope of retaining to the patients useful limbs, before it was evident that amputation would be the wiser proceeding. If the patient be under chloroform, insensible to pain, separated from passing events, and under the hands of an able operator, I confess I can myself see but little additional risk that is thereby incurred.

In the memoirs of Mr. Butcher on "Excision of the Knee-Joint," several operations have been recorded as undertaken for "strumous disease of the joint." It is to be regretted that the term "strumous" is so frequently used without a more distinctive meaning. I wish particularly to make a grand distinction between diseases partaking of the character of struma, commencing within the cavity of the articulation, and those originating in the cancellous structure of the heads of the bones entering into the formation of the joints. This distinction is all-important; for I do not hesitate to say that every diseased joint, with the exception of that form arising from diffuse strumous infiltration of the heads of the two bones, is, in general, well suited for the adoption of resection in preference to amputation.

Mr. Butcher gives a short account of eighty-two cases in which the operation of removal of the articulation had been adopted. Not more than a seventh of this number are recorded as strumous, but in every one of these cases, with the exception of a solitary instance, the strumous nature of the disease would appear to have been manifested in the synovial membrane of the joint, or to have appeared in the open texture of the heads of the tibia and femur under that form which is termed circumscribed infiltration.

I have been at some pains to ascertain the pathological condition of the ends of the bones in those cases which are described as "strumous," and my thanks are due to several Surgeons for the kindness with which they have answered my inquiries. The solitary instance to which I allude fell under the notice of a most distinguished Surgeon, Dr. Keith, of Aberdeen. This case is so full of interest, and as yet unpublished in detail, that I take advantage of the kindness of Dr. Keith, who allows me to use it.

The patient was a man aged 33, the subject of extensive disease of the knee-joint and neighbouring bones, which had existed for eleven months. Excision was performed on March 10, 1855. "One inch and a quarter was taken off the end of the femur, and half an inch from the head of the tibia. The bones were expanded, the interior reddish, and every cell filled with a lardaceous deposit. On sawing through the head of the tibia, an abscess in the very centre of that bone was opened, from which a tea-spoonful of ripe pus escaped, leaving a thimble-shaped cavity. Three abscesses outside and around the joint were also laid open." The account for-

warded to me by Dr. Keith is so graphic, that I cannot avoid transcribing it:—

"Well, this case got every care that my skill could devise. I was dresser myself, and fought on for 222 days, and at last, to save his life, gave in and amputated the thigh on October 20, 1855; and on November 30 he was dismissed cured, and at this date (May, 1857,) commands a trading brig out of the port of Aberdeen, walking on an artificial limb."

The ends of the bones, in this very interesting case, exhibited all the distinctive characters of destruction by diffuse strumous infiltration; and the conclusion arrived at by the operator is so just, that, should no companion case be brought forward, it may serve as a beacon to warn those less experienced from attempting a similar proceeding. "Reason told me so (I was wrong) before I operated; but I tried it. I thought an open joint, with the free discharge and irritation lessened—that good keep, and other suitable treatment, might remedy even the disease of the bones; but no, no."

From the details of this single case it would appear that the operation of resection is not adapted for the treatment of knee-joints destroyed by diffuse strumous infiltration of the articular extremities of the tibia and femur; and such a conclusion is, I believe, fully justified.

The two great objects to be obtained by resection of a diseased articulation are—removal of every trace of disease, and giving to the patient a good and useful limb. To insure the former requisite it is absolutely necessary that such cases only should be submitted to the operation in which the nature and extent of the disease is clearly and distinctly ascertained not to involve a greater amount of structure than can be removed with propriety. Unfortunately, the diffuse form of strumous infiltration, in the majority of instances in which it destroys the integrity of the knee articulation, is too extensive to be entirely removed, and therefore the operation is decidedly inappropriate for this class of disease.

That the patient may possess a useful limb, in every way superior to a wooden substitute, it is imperative that the cut surfaces of the bone should be firmly bound together by union of such strength as will enable all the motions of progression to be performed with comfort and facility. It is by no means absolutely necessary that the bond of union should be completely osseous in character, although I am aware that many, not particularly well informed on this interesting subject, deem such a termination indispensable.

I am acquainted with instances where an admirable degree of usefulness is afforded by limbs in which union of the surfaces of bone is, if not altogether, in a great measure fibrous and flexible: and it is not improbable that ere long it may be deemed desirable to retain a certain degree of motion, instead of obtaining a firm osseous anchylosis. But it is questionable if reparation even of the latter kind will take place between the exposed surfaces of the two bones. It is tolerably certain that no new bone will be formed, as the mother structures are incapable of accomplishing such repair, and the only junction that could with any reasonable hope be expected, would arise from parts external to the osseous walls. If such cases be subjected to the operation of resection, it will probably be through ignorance of the true state of the affection. Various terminations may follow the unwise adoption. It may happen, that for some considerable time everything may seem to progress favourably. The soft parts may heal to a great extent, but no union may be discernible as arising between the cut surfaces of bone, although experience points to the contrary hope, and a natural dread of amputation may for a longer period encourage the patient and surgeon. Or a more serious termination may quickly follow the operation. The diminished vitality of the divided structures, the debilitated constitution of the patient, and the inappropriate manner in which the subsequent treatment may be carried out, may favour the lighting up of unhealthy inflammation, which is not improbable to end in destruction of the exposed bone by caries or necrosis. A timely resort to the knife and gouge may for a period avert further mischief. This has happened once in my own practice, and the removal of the dead portions of bone was attended with a beneficial result. Ultimately, however, the withering powers of the patient, distressed by the constant irritation of an unclosed wound combined with unhealthy and extensive suppuration, may call for amputation, as in the case recorded by Dr. Keith, and, if the truth were known, as has more frequently happened in the practice of other surgeons.

No generous diet or the exhibition of bone-making material, as phosphate of lime, is sufficient to cure this diffuse form of disease, even when the greater part may have been removed in the operation by resection; and, unless future experience shall dictate to the contrary, I must, although an ardent supporter of this great and useful operation, unwillingly give preference to removal of the disease by amputation of the thigh.

(To be continued.)

DISLOCATIONS IN THE CERVICAL REGION OF THE VERTEBRAL COLUMN.

By CHARLES WILLIAMS, Esq.
Formerly Assistant House Surgeon to the Bradford Infirmary, Yorkshire.

Simple luxations of the vertebræ are of especial interest to the Surgeon, as much from the rarity of their occurrence, as from the small amount of information we possess respecting them. In proof that we have little information respecting them, I need only cite the opinions of authors, and these will indeed be found to be most conflicting, and with some extend so far as to amount to a positive denial that such form of accident can possibly occur. This is undoubtedly an error: although the lesion may be as rare as any to which the human body is subject, it nevertheless does happen, and a sufficient number of well-recorded cases are scattered through the Medical Journals, which prove the fact incontestably, and which should justify some notice of the subject being made by all authors on Surgery; instead of which, the fact of dislocation is overlooked, or else merely mentioned as one that is "excessively rare."

By "simple dislocation" is meant displacement of a vertebra from its fellows without fracture of any portion of its body, or articulating processes, and without fracture of the same parts of the vertebræ immediately connected to it. When fracture of the above parts exist, then it is termed "compound;" such accident is more common than the former, and is denied by no one; of such it is not my purpose to treat in the present paper, but of dislocation without fracture. I offer a summary, consisting of cases that have been from time to time recorded in Medical periodicals, and of those only which are verified by post-mortem examination, excluding those in which reduction was effected and life spared, of which some few are registered; and again, those in which luxation occurs as the result of strumous disease of the bodies, or articular processes, which is so prone to happen in this region, and in which anchylosis is the sequence, constituting spontaneous dislocation.

Good examples of this, occurring between the atlas and axis, are related by Messrs. Paget and Shaw in the thirty-first volume of the Medico-Chirurgical Society's Transactions, and by Mr. S. Stanley, (a) in which "the atlas on the right side was pushed forwards and upwards from off the articulating surfaces of the axis, so as to cause the odontoid process to present itself nearly in the centre of the circle of the axis, a bridge of bone half an inch in length and three or four lines in breadth, passing nearly horizontally forwards from the odontoid process, the atlas connecting them together. The axis was also pushed forwards in the same manner from the third cervical vertebra, but not to so great an extent."

Mr. Lawrence likewise mentions several cases. (b)

In the following table is introduced a case which had not been hitherto recorded. It occurred at the Infirmary at Bradford, in the year 1834; and while residing at that Institution a short time ago, I copied an account from the in-patients' register. The history is very meagre, nevertheless there is evidence enough of its being a perfect dislocation, and to justify its association with the rest.

(a) Edinburgh Medical and Surgical Journal, Vol. LVI. 1841.
(b) Medico-Chirurgical Transactions, Vol. XIII.

No.	Sex and Age.	Vertebra.	Authority.	Cause of Accident.	The period at which death occurred after receipt of injury.	Examination after death.
1	M. 27	1st	M. Cloquet. Lancet, Vol. I., 1829-30.	Had fallen from a height of 50 feet.	3 days.	M. Cloquet found a dislocatiou of the atlas, the right articular process being turned anteriorly, and the left posteriorly, the lateral ligaments were ruptured, and the bodies of the fifth and sixth cervical vertebræ fractured.
2	M. 22	4th	Mr. Lawrence. Medico-Chir. Transactions, Vol. XIII., 1827.	Was carrying a heavy barrel on the back of his head and neck, slipped in descending some steps, and fell on the buttocks, the burden resting on the head and upper part of the neck.	80 hours.	The body of the fourth was completely detached from that of the fifth vertebra, the connecting fibro-cartilage being torn through, and the body of the former projecting by its whole depth in front of the latter. In consequence of this displacement, the antero-posterior diameter of the vertebral canal is lessened by about one-third.
3	M. 35	4th	Mr. Liston. Lancet. Vol. I., 1837 and 1838.	Was sitting on a rail, about 4 feet in height, when he fell suddenly backwards, pitching on the ground with considerable violence.	24 hours.	There was complete luxation between the fourth and fifth cervical vertebræ, the latter being thrown backwards. The proper ligaments of the vertebræ were lacerated. There was no fracture of the articulating processes.
4	—	4th	Miller's Practice of Surgery, 1852.	Fell backwards over a high paling, and alighted on his head.	A few days.	Dislocation between the fourth and fifth cervical vertebræ, cord torn.
5	M. 35	5th	In-patients' register 1834, Bradford Infirmary, Yorkshire.	....	2 days.	The fifth cervical vertebra was found dislocated from the sixth in both the articulating processes. No fracture either of the body or articulating processes of the fifth or sixth was present.
6	M. 37	5th	Mr. Stanley. Edinburgh Medical and Surgical Journal, Vol. LVI., 1841.	A seaman, lost his footing and fell backwards on his head on the deck.	55½ hours.	There was considerable displacement backwards of the fifth from the sixth cervical vertebra, the little finger could easily be passed underneath it into the spinal canal, the body of the fifth pressed severely on the spinal cord, and rested on the laminæ and spinous process of the sixth cervical vertebra. The injury was a complete dislocation, without fracture.
7	M. 42	5th	London Hospital, Medical Gazette. Vol. VII., 1831.	Had fallen into a sand-pit, a depth of 6 feet.	Died the same day.	The fifth cervical vertebra was completely separated from the sixth, all the ligaments posteriorly torn, and the anterior part of the column thrown to the left side and forwards. No fracture.
8	M. 31	5th	M. Pinault. Medico-Chirurgical Review, Vol. VIII., 1828.	Fell on his head from a height of 20 feet.	3 days.	The cervical ligament was found to be torn, and there was a complete luxation of the fifth from the sixth cervical vertebra, without any fracture.
9	M. 30	5th	Dr. Norris. American Journal of Medical Sciences, April 1841.	He had been thrown headlong against the curbstone from a gig.	About 2½ days.	The fifth cervical vertebra was thrown forwards upon the sixth; examiued in front, the vertebral ligaments were found to be ruptured, and the intervertebral substance torn up, so that the body of the fifth was completely separated from, and projected over, the sixth. Accurate examination proved that no fracture existed.
10	M. 51	5th	Mr. Quain. Medical Gazette, Vol. II., 1841.	Was carrying a sack of coals, and slipped backwards from the step of a door, and his neck came against the edge of the step.	34 hours.	The fifth cervical vertebra was found dislocated forwards ou the sixth; the articular processes of the former having passed in front of those of the latter. The intervertebral substance was entirely torn from the body of the sixth cervical vertebra.
11	M. 42	5th	Mr. Earle. Lancet, Vol. I., 1828, 1829.	Fell from a cart into the street upon his head, while engaged in levelling the grain with which the cart was loaded.	A few hours.	A perfect iustance of simple dislocation without fracture, betweeu the fifth and sixth cervical vertebræ. The calibre of the caual was diminished to about half its extent, and there was rupture of the ligamentum flavum between the dislocated vertebræ.
12	M. 33	5th	Dr. Schuk. Medical Gazette, Vol. II., 1840, 1841.	Fell down in his sleep, from a beam several feet high.	12 days.	Separation between the fifth and sixth vertebra, so that the whole of the column above the latter projected for half an inch forwards. The right articulatiug process of the fifth had mounted over the corresponding process of the sixth, and was in connexion with the anterior surface of the latter, while the tips of the left articulating processes of the same vertebra were impacted one upon the other.
13	M. 35	5th	Dr. Hutton. Dublin Quarterly Journal, May, 1854.	Was thrown from a tax-cart into a ditch.	4 days.	A spaee was observed between the fifth and sixth cervical vertebræ. The superior articular surfaces of the latter were exposed, the fifth having apparently been drawn upwards and forwards. There was no fracture of the body of either vertebra. The injury was, beyond any question, a true luxation.
14	M. —	5th	Dr. Watson. Principles and Practice of Physic, Third Edition, Vol. I., p. 477.	Thrown out of a tilt-cart, and pitched upon his head.	4 or 5 days.	The fifth and sixth cervical vertebræ were dislocated from each other, without any fracture. The articular processes were fairly separated, and the vertebræ were also forced asunder by the detachment of one of them from the intervertebral substance.
15	M. 49	5th	Dupuytren. Sydenham Society's Transactions, page 343.	Fell backwards down stairs, while loaded with two sacks of plaster, one of which struck his breast whilst his head rested on.	10 hours.	A dislocation of the fifth from the sixth cervical vertebra was found, the former being forced forwards, yet the bodies of neither were broken. The intervening fibro-cartilage was torn through. The only fracture was that of the joints of the transverse processes of the fourth and fifth vertebræ. The spinal marrow was torn through at the seat of dislocation.
16	M. 36	5th	Mr. Butcher. Dublin Quarterly Jourual, May, 1853.	Slipped off the top of a vehicle, and fell upon the pavement on his head.	57 hours.	In front, the body of the fifth cervical vertebra formed a remarkable prominence, the connecting fibro-cartilage between it and the sixth being entirely torn through, permitted of the anterior displacement of the former by the depth of half its body in front of the latter. The articulating processes of the above vertebræ were apart more than a quarter of an inch.
17	M. 36	5th	M. Lasalle. Medical Gazette, 1841.	The patient (a lunatic) was strapped to a chair, and rose up from his seat, threw his head forcibly backward, and then flung it with great violence forward.	36 hours.	Solution of contiuuity was found between the fifth and sixth cervical vertebræ. The posterior cervical ligament and the interspinary muscles were ruptured, and the intervertebral substance torn. There was no fracture of the bones.
18	F. 37	5th	Mr. Howship. "Discrimination and Appearances of Surgical Disease," 1840, page 78.	Was leaning over a low bedstead, and rolled out, the neck bending forward under her.	5 days.	The body of the fifth was thrown forward a quarter of an inch. The margin of its right inferior articulating process was pitched in front of the corresponding edge of the process below, from which it was dislocated. Intervertebral substance partially torn asunder.
19	M. 35	5th	Dr. Schuk. Medical Gazette, Vol. II., 1840, 1841.	Fell from a cart, first with his neck upon the shaft, and then with his head upon the ground.	3 days.	The fifth cervical vertebra, with all those above it, was found projecting three or four lines before the sixth; and the inferior articulating processes of the fifth were placed in front of superior processes of the sixth. The intervertebral substance was torn. Here was also a vertical fracture between the bodies of the fourth and fifth vertebræ, but there was no mobility of the fractured portions, for a small portion of bone remained and held them together.

No.	Sex, and Age.	Vertebra.	Authority.	Cause of Accident.	The period at which death occurred after receipt of injury.	Examination after Death.
20	F. 28	5th	Mr. Adams. Dublin Quarterly Journal, No. 11., New Series, 1848.	Fell into an area, a depth of 10 feet, the back part of the head came first to the ground.	12 days.	"In the cervical region a true dislocation had occurred, without any fracture. The inferior oblique processes of the fifth cervical vertebra had advanced, while the superior oblique processes of the sixth had gone backwards, and the body of the fifth was one quarter of an inch in advance of the body of the sixth cervical vertebra."
21	M. 2[illegible]	6th	Mr. Adams. Lancet, Vol. II. 1848.	Thrown from a cart.	53 hours.	The sixth cervical vertebra was dislocated forwards, and only retained by the anterior common ligament; there was no fracture.
22	M. 44	6th	Lancet. Vol. I., 1847. Quoted from "Archives Medicales du Midi."	Fell from a scaffolding on the upper part of his back.	34 hours.	The sixth and seventh cervical vertebræ were completely disconnected, and so twisted that the spinous process of the sixth was directed anteriorly, and at the same time upwards, while that of the seventh was carried downwards and backwards. The articular processes were also displaced, and in separating have assumed opposite directions. There was no fracture, except of the left transverse process of the sixth, in which the tip was broken off.
23	F. 56	6th	Dupuytren. Sydenham Society's Transactions.	In descending a staircase at night, fell backwards, and struck violently against the edge of a step, the posterior and inferior part of her neck.	34 hours.	The textures immediately surrounding the vertebral column were destroyed, and left exposed the articular processes of the seventh cervical, from which the sixth had been thrown forwards about half an inch; fracture of the extremity of the spinous process, and of the edge of the lower articulating processes of the sixth, existed.
24	M. 42	6th	Dupuytren. Sydenham Society's Transactions.	Was bathing in the sea, with a sail to keep off the sharks, and in plunging head foremost came in contact with the sail.	7 days.	The inferior articulating processes of the sixth cervical vertebra were found dislocated, with rupture of the corresponding fibro-cartilages; the body of the sixth cervical vertebra projected forwards.
25	M. 63	6th	Mr. Earle. Lancet, Vol. I., 1828, 1829.	Fell from a scaffolding upon his head.	32 hours.	An entire dislocation, without fracture, between the sixth and seventh cervical vertebræ. The fibro-cartilages were completely torn from between the bodies of the last.
26	M. 23	6th	Mr. Liston. Medical Gazette, Vol. II. 1846.	While on the stair-head was seized with vertigo, and fell to the bottom.	3 days.	The sixth cervical vertebra was dislocated forwards, the fibro-cartilage being torn from the inferior surface. The anterior and posterior common ligaments, and the ligamentum subflavum were torn across.
27	M. 35	6th	Mr. Lloyd, Medical Times and Gazette, Vol. I., 1852.	Riding in a cart, under an archway much too low to admit him, in consequence of which he was forcibly doubled up.	2 days.	The sixth and seventh cervical vertebræ were found separated about an inch, exposing to view the spinal cord. The separation had taken place at the intervertebral fibro-cartilages, which were left much roughened, as if forcibly pulled asunder.
28	F. 24	7th	Mr. Drew. Lancet, Vol. I., 1852.	By getting entangled in some machinery.	6 days.	Dislocation (without any fracture) of the corresponding articular surfaces on the last cervical and first dorsal vertebræ, those of the former lying most anterior, those of the latter jutting backwards and slightly upwards. The bodies of both bones were found to be perfectly free from fracture.
29	—	7th	Mr. Erichsen. "Sci. and Art of Surgery," page 278.	Fell out of a window in such a way that the head was doubled forwards upon the chest.	5 days.	The seventh cervical vertebra was dislocated forwards from the first dorsal, there being a wide gap posteriorly between the lamina of these bones. There was no fracture about the articular processes, which were completely separated from one another.

(To be continued.)

THE LONDON

PRACTICE OF MEDICINE AND SURGERY.

THE METROPOLITAN FREE HOSPITAL.

OPERATION FOR HERNIA.—CANCER OF THE OMENTUM IN THE HERNIAL SAC.

(Case under the care of Mr. G. BORLASE CHILDS.)

The occurrence illustrated by the following case is we suspect unique. An old man, aged probably about 68, a German Jew of very deficient intelligence, was brought to the Metropolitan Free Hospital one morning about a month ago, on account of rupture. He had for long worn a truss, but for years had been unable to reduce it. He fancied it had got larger during the last day or two, at any rate it had become very painful, and he had suffered from vomiting. The bowels had not acted for twenty-four hours. He was heavy and oppressed, and could scarcely be got to answer questions. His tongue was red, pointed, and tending to dry. The hernia, was a right scrotal, the size of a large fist, and presented some peculiarities. In the first place it was exceedingly firm and hard in parts, feeling almost as if it had masses of cartilage in it; then its outline was very irregular and knotted, and parts of it were firmly fixed to the adjacent structures. From the first handling of it the impression given to all who touched it was, that it would prove absolutely irreducible. No impulse on coughing could be felt lower than the middle of the inguinal canal, and no gurgling could be caused by pressure. The testicle was at the bottom of the sac, but adhered firmly to the mass above it. The scrotum was red and inflamed. An irreducible omental hernia was diagnosed, and all attempts at the taxis having failed, it was determined about ten hours after admission to administer chloroform, and if still unsuccessful to proceed to the operation.

Chloroform having been given, it was still found impracticable to effect the slightest diminution of the incarcerated mass. Mr. Childs accordingly made a free incision down the long axis of the tumour, and laid open its sac. The inguinal rings were found, as they had felt before, to be large and free, but a thick fold of healthy looking omentum passed down through them to connect itself with a large solid mass in the scrotum. This mass was most firmly adherent to the sac and the testis, and a most careful dissection was necessary to free it. The omentum having been tied in three divisions, the diseased mass below, which was evidently cancer, was cut away. But little bleeding had attended the operation, which had necessarily consumed considerable time. The wound having been closed by sutures and compress, the man was sent back to bed. He continued ever after to show the same symptoms of cerebral disturbance that he had done before, and finally sank comatose on the fifth day. There had been no signs of peritonitis, and the bowels had acted freely. A post-mortem was resolutely resisted by his connexions, who were of the Jewish persuasion. It was the opinion of all who saw him that some cerebral mischief existed, probably cancer.

The mass which had been removed was found, on being unfolded, to consist of a large portion of omentum, in which were developed numerous masses of scirrhous cancer. On tracing the omentum upwards small pea-like nodules, sparingly scattered, were found up to the line of incision, and in all probability some of them existed in the omentum which had been left in the abdomen. Under the microscope the cell constituents were seen to present most characteristic features.

It was ascertained afterwards, that the man was of very intemperate habits, and that in fact he had been intoxicated a few days prior to his admission. While so he had in all probability received some injury to the hernial tumour, which had caused its inflammation. In this inflamed state sympa-

thetic vomiting had been produced. There can be no difference of opinion as to the surgery of the case, since no doubt can be felt that under the circumstances described it was the duty of the surgeon to operate, and ascertain the condition of the parts in the hernial sac. A surgeon may well be excused for not having suspected the existence of so rare a conjunction of morbid conditions as an inflamed mass of cancerous omentum incarcerated in a hernial sac. The symptoms, excepting those indicative of cerebral disease, had been most closely simulative of strangulated hernia, and all will agree that the condition was one in which the rule, "When in doubt, operate," was very properly adopted.

HOSPITAL NOTES.

REMOVAL OF AN UTERINE TUMOUR.

We mentioned some weeks ago an interesting case in which Dr. Barnes had applied a ligature to a large polypoid growth from the uterus, believed to be fungating cancer. The patient had a decidedly malignant aspect, and was reduced to an extreme degree of debility. The tumour, which hung as a large ulcerated and sloughy mass into the vagina, was connected with another, which filled the uterus itself, the pedicle of connexion being of considerable thickness. It was judged best to apply a ligature to the pedicle, and thus remove the lower portion only, avoiding the more dangerous procedure of attempting to enucleate what was within the uterine cavity. The ligature cut through in two days, and the mass came away piecemeal soon after. Since then the woman has been free from hæmorrhage and discharge, and has greatly improved in health. The mass in the uterus has greatly diminished in size, and although a permanent recovery can scarcely be hoped, yet for the present it gives her no trouble. She has recently left the Hospital, and returned to her home duties. The case is one well illustrating how readily some of these lowly organised growths slough and disintegrate after injury. The effect of the ligature has evidently been to cause the destruction of a considerable mass above the line of its application. It should be stated that the tumour was exceedin ly soft, so much so, that the vaginal mass, although at least the size of a fist, came away in shreds, without any assistance. The fact of the easy production of death of these growths is a very important one in surgical practice, and may not unfrequently encourage the Surgeon to attempt something, where otherwise interference would be hopeless, and might even risk much mischief. Although the relief obtained may be but temporary, yet it is undoubtedly well worth securing. In the case now under notice, it is not improb ble b :t that the woman may have four or five months of enjoyable life before the recurrence of the growth, as occurred in the case No. 3 of the series we commenced last week.

EXCISION OF THE SHOULDER JOINT.

On Saturday last Mr. Lawrance performed at St. Bartholomew's the excision of the head of the humerus in a case of diseased shoulder-joint. This excision is, as our readers will be aware, one of the most infrequent. Its infrequency, however, depends upon the comparative rarity of disease of that articulation, and not upon any unsuitability of the operation for its cure. We recollect a little girl upon whom, about five years ago, Mr. Erichsen removed the shoulder-joint for strumous disease, and who recovered well with a most useful arm. A second case operated on by Mr. Birkett, in Guy's, also did very well whilst under observation; but as the healing was not quite complete at the time of leaving the Hospital, we cannot state what degree of use was preserved. It promised, however, to give a most satisfactory result. Mr. Lawrance's patient is a middle-aged man, of somewhat slender build, but usually in the enjoyment of good health. The joint has been the subject of slow disorganising inflammation for four years past, the disease having been exacerbated into a more acute stage of late months. He was in the Hospital, under Mr. Wormald's care, about a year ago, and was then discharged at his own request, somewhat relieved. Of late, however, his suffering had been such that he became very anxious for operative relief. Mr. Lawrance cut a large curved flap of the deltoid and overlying integument, and having reflected it, opened into the joint. The elbow being now carried to the side, and lifted up, the head was turned well out and sawn away. It presented a very interesting pathological specimen. Its cartilage was wholly removed, and its surface carious, but the starting-point of the disease had evidently been an interstitial abscess. About an inch from the surface, and communicating with the joint by a narrow channel, was a cavity capable perhaps of containing an almond, in which was imbedded a portion of almost loose spongy bone. The existence in other parts of the bone of deposit which closely resembled tubercle, made it probable that this abscess had originally been of that nature. Its ulceration through into the joint had no doubt been the means of setting up the articular mischief. The case was one exactly suitable for excision, the shaft of the bone being healthy, and the soft parts more than usually sound. The age of the patient is the only doubtful feature as to his future prospects.

THE PROVINCIAL PRACTICE OF MEDICINE AND SURGERY.

REPORT ON THE ENUCLEATION TREATMENT OF UTERINE FIBROUS TUMOURS.

(Continued from page 87.)

LEEDS GENERAL INFIRMARY.

FIBROUS TUMOUR OF THE UTERUS REMOVED BY INCISION AND ENUCLEATION.

Under the care of Mr. THOMAS P. TEALE.

Sarah Tetlow, aged 35, admitted into the Leeds Infirmary, November 10, 1856, in an exhausted and anæmic state, from large discharges of blood from the womb. She is unmarried, and has never been pregnant.

Since the age of 15 years she has menstruated regularly, but rather profusely. Two years ago the catamenial periods became more prolonged, with only an interval of a fortnight. During the last four or five months the discharges have been more profuse, with only an interval of a week, during which time they have been replaced by leucorrhœa. Large clots of blood have been occasionally discharged.

Her general health has been pretty good, and she has not lost much weight; but she has become weak, and looks extremely anæmic.

On examination, the vagina was found rigid and narrow, except at its upper part, which was distended by a large fibrous tumour. This mass seemed to fill the upper opening of the pelvis. The mouth of the womb was so completely dilated, that it could not be felt.

Nov. 13. The patient being bandaged, and placed in the position as for lithotomy, Mr. Teale applied the long midwifery forceps to the tumour, and having firmly grasped it, proceeded gradually to bring it beyond the external parts. This process was tedious on account of the rigid condition of the vagina and perinæum, but by steady perseverance, and by the re-application of the forceps, which had once slipped, the tumour was at length drawn fairly beyond the external parts, bringing along with it the inverted womb. It was now found that the tumour was not pedunculated, but attached by a broad base to the womb, from which organ it received a somewhat dense covering. The distinction between the tumour and the general substance of the womb could be readily perceived by the touch. An incision was now made through the investing membrane round the basal portion of the tumour, not far from its attachment to the womb, after which, the mass was readily detached by enucleation. The inverted condition of the womb was immediately afterwards reduced by the hand passed into the vagina, after which the patient was put to bed, and took an opiate and some hot brandy and water. The separation of the tumour was effected with scarcely any loss of blood.

The tumour measured five inches in length by three in breadth. About one half of its surface was covered with the investing membrane, and the remaining half exhibited the exposed nodulated surfaces of fibrous texture.

Nov. 17. The discharge, which has been slight since the operation, has now ceased to be coloured with blood. The patient feels well, and has scarcely had any pain since the operation.

Nov. 22. She is able to sit up a little, but feels weak.
Dec. 5. Discharged cured.
July 27, 1857. Since the last date she has continued in good health, and has been able to attend to her ordinary occupation.

(This series to be concluded next week.)

LIVERPOOL ROYAL INFIRMARY.

CASE OF VESICULAR DISEASE, SUPPOSED TO HAVE BEEN CONTRACTED FROM A SHEEP—DEATH—AUTOPSY.

Reported with Remarks by Mr. Joseph Allen, House-Surgeon.

In the *Medical Times and Gazette* for June 17, 1856, was reported a Clinical Lecture delivered by Dr. George Burrows at St. Bartholomew's Hospital, on some cases of "a Vesicular Disease contracted from Sheep." A case having a strong resemblance to the two mentioned by Dr. Burrows occurred this week at the Liverpool Royal Infirmary; I regret to say that the case terminated fatally; but a post-mortem examination having been made it may serve to fill up what was wanting in the other two cases.

Samuel Paul, aged 11 years, a thin, sickly-looking lad, was admitted about 5 p.m. into Ward No. 13, on July 19th, 1857. The following was his condition as observed at the time:—Countenance pallid, expression anxious and depressed. Sordes on teeth and gums; nares clogged with discharge, which has dried. He lies in a sleepy state, scarcely answers questions, and does not ask for anything either to drink or eat. Respiration slightly hurried. Both eyelids on each side exhibit a raw surface, and a sero-purulent discharge oozes from them: corneæ clear. His body presented the following appearance:—On the back of the hands, between the fingers, and over each joint, and also along the sides of the palm of the hand, were vesicles of different sizes, mostly confluent, from the size of a pea or less to that of a walnut, some containing serum merely, others a sero-purulent fluid; and others, and by far the more numerous, being dry, and showing a red base, the cuticle over it being shrivelled, but entire.

On the wrists were large bullæ, oval in shape, and of the size of an egg, also some on the forearm on both aspects, on each elbow, and a few on the upper arm. These were in different stages. Some also were of oval form, others circular; a mixture of vesicles and bullæ, perfectly symmetrical, on either side throughout. All showed evidence of a more or less inflamed base, more especially the more recent ones, the red margin contrasting strongly with the natural colour of the skin, and the white or yellowish-white of the vesicles. There were a few large partly ulcerated circular spots on the shoulders, on the scrotum, and penis. The cuticle was entirely gone, and the surface raw. On the inner part of the thighs were several large surfaces ulcerated. Several large bullæ, containing sero-purulent fluid, were on the knees, and also on the legs, especially on the inner side and the back. Around the ankles and along the inner side of the foot to the toes were many bullæ, and some vesicles confluent. The toes, and between them, presented the same appearance as the hands, the soles being free, as were the palms, save at the edges. Along the edges of the lips the appearance was more that of the vesicles of herpes. From these and from the nose were offensive discharges, which had more or less caked. The breath had a peculiar fetid odour. Skin dry and warm; pulse small, frequent, easily compressible; tongue, as far as can be seen (for he cannot open his mouth, owing to the state of his lips), dry and brown; bowels open once to-day; motions reported relaxed and dark; no retention of urine. Seems irritable when touched, otherwise is generally insensible to pain. On the sole of the left foot is a wound of the size of a sixpence; edges dry and irregular.

History.—His mother is dead, and his father is a ship's-carpenter, and he is consequently left to take care of himself, and appears to be generally running about the markets, stables, and slaughter-houses—seldom or never wears shoes or stockings. On the 8th ult., eleven days ago, whilst driving some sheep, was wounded in his left foot, but kept about. On the 12th (seven days ago), complained of pain in his left heel, and did not seem well. About the evening of the 14th or morning of the 15th, small red spots were noticed on his legs; could not say on which leg first, and then soon after on the forearms, and other parts subsequently. These, as the friends state, "became blisters, and the water afterwards became corrupted." At first he was very feverish, and they gave him some simple medicine, afterwards a Medical man was called in, and becoming worse, the lad was recommended to be brought to the Infirmary. About this time last year, his father says, he had some blisters like these across his loins and on his thighs, which lasted a few days; has generally been a healthy child.

Treatment.—He was at once ordered wine and beef-tea and a small quantity of brandy, and a mixture containing potassæ chlorat. and liq. cinchonæ. The limbs were dressed with oiled lint and a thin layer of cotton wool, some of the raw surfaces dusted with starch, and water-dressing to the eyelids.

Progress of the case.—He is obstinate, and some pains and trouble are required to get him to take the food, etc. It appears that the Medical man had ordered bark and chlorate of potash, etc., before the boy was admitted; but his friends could not manage him. He was liberally supplied with wine, beef-tea, and arrowroot, and on the morning of the 21st seemed better. During the day, however, he gradually became worse, and died quietly early on the morning of the 22nd. There was very slight diarrhœa on the 20th; bowels only open once on the 21st, however. Many of the vesicles were drying up, and no fresh ones had made their appearance since his admission.

Autopsy, ten hours after death.—Rigidity remaining in lower extremities, most of the vesicles are dried up, and the red appearance of their base lost, looking now of a dingy hue. Muscular tissue healthy. *Pleuræ* healthy, slight adhesions on the right side posteriorly. *Lungs—upper lobes* emphysematous; and at their lower and free margins, and extending into the lobe, some interlobular emphysema. *Lower lobes*, post-mortem congestion; healthy save posteriorly extending from the upper to the lower border perpendicularly, and including three or four lobules close to the pleural surface, where it was in a state of hepatization—a lobule here and there appearing of a lighter colour than the rest. On cutting this across, a thin, whey-like fluid was observed, and under the microscope some pus cells were discovered; this perpendicular line of hepatization was strongly conspicuous beneath the pleural surface—that on the left lung was somewhat more marked, otherwise both were symmetrical. Free margins emphysematous. *Bronchi* healthy. *Heart* healthy, all the cavities contained firm separate coagula. *Liver* natural size; irregular yellow patches observed on convex surface, beneath the capsule, which is here adherent, and leaves a rough surface when stripped off. On making a section, these yellow patches appeared scattered irregularly, in some places more or less circumscribed, in others diffused, and in the latter the liver had a greasy appearance. On a closer examination, it seemed to be due to some state of the lobules, some lobules being entirely of this hue, others irregularly so. The tissue of the liver generally firm. Under the microscope, no deposit could be detected, but the hepatic cells appeared altered, and contained a larger amount of oil globules than natural, there were also free oil globules observed. *Spleen* of natural size, firm and healthy, not congested. *Kidneys* pale, healthy. *Stomach* and *intestines* presented nothing abnormal. *Mucous membrane* of mouth, pharynx, &c., apparently healthy; at the lower half of the œsophagus, however, the mucous membrane was gone in patches, and there were also some rough tawny-looking patches here and there. *Brain* firm, healthy. No inflammation of the veins of the left leg.

Remarks.—There can, I think, be but little doubt that this case is a parallel one to the other two. The lad is about in all manner of places, gets a wound of his foot while driving sheep; and what more likely than that some animal poison are absorbed into the system through this wound? The symmetry of the disease, even in the lungs, is worth noticing. The condition of the liver, and the hepatization of the lungs readily explained by supposing some inflammatory process set up by the presence of an irritating poison in the blood. It would be superfluous in me to do more than refer your readers to Dr. Burrows' lecture; and I am glad of being able, even in this slight degree, to confirm the opinion of one to whom I owe so much, and whose kindness I can never forget.

NEW INSTRUMENT.

ON THE HÆMANTLION,

AN INSTRUMENT TO FACILITATE THE EXAMINATION OF THE BLOOD IN DISEASE.

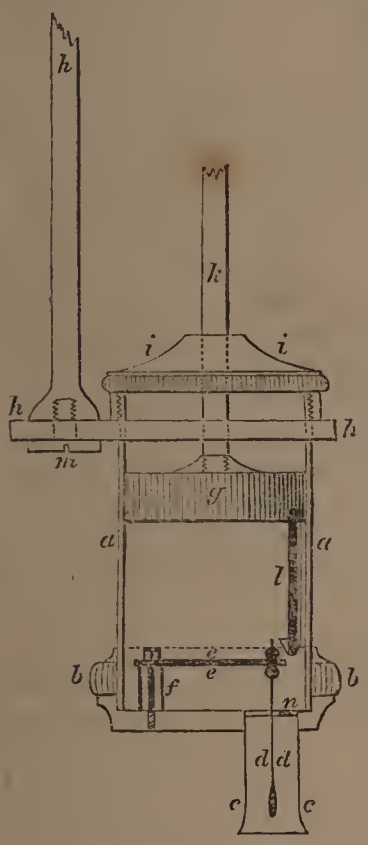
By HORACE DOBELL, M.D. L.R.C.P.

In attempting a systematic observation of the microscopic characters of the blood in disease, several serious difficulties present themselves.

1. There is no means of obtaining blood without inflicting pain.

2. Venesection is seldom either necessary or desirable in the large majority of diseases.

3. Blood from a vein, when obtained, does not present the best specimen of the circulating fluid, and its physical characters change before the operation of venesection can be concluded, and the blood placed under a microscope.



4. Obtaining blood from the capillaries, by running a needle into the flesh, is attended with considerable pain, if inserted deep enough to ensure bleeding, and when thus obtained, the blood, having oozed out slowly through a fine orifice, consists principally of serum, the colourless corpuscles being especially deficient.

These difficulties have not presented themselves to me alone, but have been the principal, if not the only, cause for the poverty of knowledge on a subject of such interest as the microscopic characters of the blood in disease.

I have removed these hindrances from my own way by contriving the little instrument which I am about to describe to the Society, in the hope that it may be useful to others as well as myself. By it a drop of capillary blood may be obtained in a moment, without pain, as easily as we can feel the pulse or look at the tongue.

Description of Figure.

A, a cylinder having a solid base, *b*, perforated at *n*, so as to communicate at that point only with *c*, a small glass receiver.

G, a piston to the cylinder *a*, worked by a rod *k*, which is four-sided, and moves in a four-sided aperture in *i*, to prevent its turning round, and having a ring at the end for the finger.

Attached to the piston is a slender rod *l*, having a spring trigger at its end, and descending through *n*, into the receiver *c*, when the piston is thrust down.

A spring, *e*, is connected with the needle *d*, which passes through the solid base of the large cylinder into the receiver below.

The needle, *d*, is so shaped at the point, that it shall cut an opening into the cuticle sufficiently wide to allow the blood, in its natural proportions of corpuscles and serum, to gush through, and is not long enough to reach the surface of the flesh until discharged by the trigger.

A pistol-shaped handle is attached to the cylinder at *h*, *m*, *h*.

In using the instrument the orifice of the receiver is placed upon the skin of the patient, the upper arm being the most convenient place. The piston rod is raised by the finger in the ring, and thus the receiver is sufficiently exhausted to draw the flesh up into its cavity. As the piston rises, the trigger, at the end of the slender rod, catches the spring and raises it, and with it the needle. The moment the piston has reached the top of the cylinder, the flesh being well up in the receiver, charged with blood, and insensible to pain, the spring slips from the trigger and the needle is instantaneously darted into the flesh and withdrawn by the recoil of the spring, a drop of blood starting at the same moment to the surface.

The instrument can at pleasure be fitted with a needle having a wider cutting surface, by which several drops of blood may be obtained for *chemical* examination.

For the skill with which he has carried out my design, I am indebted to Mr. Kiessler, who is now engaged in constructing the instrument for Messrs. Ferguson, of Giltspur-street, Smithfield.

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Medical Times & Gazette.

SATURDAY, AUGUST 1.

QUACKERY AND PROFESSIONAL OBLIGATIONS.

Among the many social questions which are but ill understood by those whom they most concern, is that which has reference to the relative position of the quack, or pretender to Medical skill, and the trained, legitimate practitioner. So confused are the common notions on this subject, that we have recently heard a clergyman, a member of the University of Oxford and the rector of a parish, say, that he saw "no reason why we should not have free trade in physic as well as in other things, without licence or restriction of any kind; nothing but a fair field for all who choose to come into it." While men in this condition of life show such dense obscurity of mind about the first principles which a government should adopt in its regulations for the well-being of its people, we need not wonder that their parishioners become the easy dupes of impostors, and the miserable victims of untaught empirics. It is impossible to measure up the full extent of the evil of this kind which either ignorance, or indifference, or a false estimate of duty allows to prevail in our country districts. And it is only occasionally that we get a revelation of some of the dark secrets which are covered up, in out-of-the-way places, by the cloak of clerical tolerance or stupidity. But such things do sometimes find their way into the light of day. In the very parish which is under the care of the individual of whom we have just spoken, (and whose rebound from his old tory notions of absolute agricultural protection has thrown him into an abyss of latitudinarianism, where we fear he must be left hopelessly floundering,) a case has lately occurred which may very profitably be noticed in our columns.

In the course of last autumn a poor woman, the wife of a farm-labourer, felt the first indications of pelvic uneasiness. They increased, till at length in the beginning of this year she was induced to wish for assistance. Some injudicious friend brought to her notice an unqualified man, who was living near by, and professing to cure all diseases by some surprising means. With the craft which is necessary for the designs of such creatures, he wrought himself into the good opinion of the patient by telling her that, as he saw she was a God-fearing woman, he must begin her cure by reading some of

God's word, and praying with her for God's help. The form was accordingly gone through, and proceedings commenced. He assured her that he should now be successful and restore her to health, gave her drugs, visited her from time to time, and took her money. Months passed on; she grew weaker, and her sufferings became worse. Our free-trade rector brought to her bed-side the consolations of religion, and fraternised with her attendant. On being remonstrated with for this open sanction of an imposition, he replied that his functions were purely spiritual, that his people had a right to deal with their own bodies as they pleased, that any attempt to denounce or to oppose such a man would place him in a position of enmity which he thought inconsistent with his character of priest, and then, feeling somewhat bilious, went home, and, as recommended, took a dose of his pious brother's nostrum. A week or two ago a lay visitor, rather more clear-headed, and with a true sense of Christian duty, after inquiring into the facts, and giving sympathy and solid assistance, ventured to suggest that, as the patient seemed to be gradually getting worse, her condition in such hands was one of great danger; and that it was only right some man of approved skill should see what was the matter, and whether there was any room for help. The woman, who herself had long settled down into the state of effortless endurance which the almost solitary sickness of a cottage is sure to bring on, and whose untutored husband and children only listened with dull wonderment to the boasts and prayers of the man who, by and by, was going to cure their dying relative, eagerly grasped at this manifestation of real kindness. She did more than consent, and became anxious to see some one who at least could tell her the truth; for when once roused, even by a hint, her instinct showed her that she had all along been deceived by false promises. It was soon arranged that a Fellow of the College of Surgeons, of great local repute, should investigate the circumstances, and a friend of ours, who happened to be on the spot, was asked to accompany him.

What did they find? In the close room of a small cottage, in one of those country lanes which we are apt romantically to picture as the scenes of rural comfort and happiness, there lay upon a make-shift couch, contrived out of two or three odd chairs, the form of a once strong woman, about 60 years of age, cold, blanched, *salivated*, and, by slow degrees, dying. Less than twelve months ago she was in health, and had no local symptoms of wrong. Now, the answer to their first question told the whole tale, and a vaginal examination disclosed the presence of an enormous uterine polypus. There had been no trace of this till the time mentioned, and no notice of it, nor knowledge of it, during the whole of the melancholy pretence to cure. It was too late to advise more than palliative measures.(a)

Now what does this teach us? We often hear our Medical friends complain that practice is not what it used to be, that quacks of all kinds are stealing away their patients on all sides. To a certain extent we admit this to be true, and there are many reasons for it; but the one we wish here specially to note is this, that we ourselves do not take sufficient pains to make known, in our respective circles, what is our true professional position. Every one of us, at one time or other, is compelled to hear ignorant remarks about his professional standing, or finds himself, in some Medical matter, estimated by those whom he supposes ought to know better, as on a level with some notorious quack. The annoyance is personal, and is perhaps sorely felt, but we do not individually appreciate its aggregate extent. It is, however, almost universal, and, of course, of proportionate magnitude; and if the daily occurrences of the like kind throughout the country could be so concentrated as to become at once felt, we should be astonished at the amount of whips and scorns, the contumely, the insolence, and spurns that our corporate merit of the unworthy takes.

We owe it, then, as a duty to each other, to explain as clearly as possible to all proper persons, and in the provinces especially to the Clergy, the nature of our professional qualifications; the way in which the law, through the corporations, regulates our educational tests and training; the way in which it determines our rights and privileges; the way in which it affects our intercourse with our patients—reversing, in our case, the maxim, *caveat emptor*, which applies to money transactions in general; the way in which it leaves the empiric, with one narrow restriction as to purely medical cases, to work his unfettered will upon the public credulity. In plain terms, it may be made clear to them that all the law does for the Profession is to declare that men holding certain diplomas and licences may be known by the public as having passed through a sufficient educational discipline to qualify them as safe advisers according to the present state of science; and that, in the event of malpractice, they have their legal remedy, and may obtain compensation. At the same time, it should be told what the Profession has done for itself; how it has, for years past, continuously been bent upon raising the standard of educational requirements for all its members; how every board, college, and university, has, by degrees, restricted the distribution of its honorary distinctions to any but men who give evidence of sound scientific knowledge and skill in the art they profess; how, by the force of professional opinion, the bestowal of public appointments is becoming almost equivalent, as a testimonial, to an established order of merit; and how the Medical department of our armies is now recruited by a competitive examination, devised and conducted by men themselves holding the first rank in their several branches of knowledge.

It should be told, too, that the means of acquiring those distinctions are so simple, and the way to them so unbarred, that mere want of riches can be no hindrance to the success of the steady application of the necessary mental power; and that the unavoidable inference is, that when a man is found assuming the character of a Medical practitioner without being able to produce a declaratory and approving document from some recognised board, college, or university, he must be an ignorant, unprincipled, dangerous impostor.

This duty we owe primarily to ourselves, and to each other as professional brethren, whatever may be our rank or social position. We owe it also to those about us holding public office, and in situations of influence and authority, that, being out of the pale of the Profession, and consequently not familiar with its internal polity, though often called upon to give advice, or express an opinion on points connected with it, they may be spared from so doing unwarily or detrimentally. We owe it likewise to the public at large, which, however it may be beguiled for a time from its true interests by plausible and persevering clamour,—however prone it may be to run wild till it has outdistanced its fancies,—however reluctant it may be at once to yield itself up confidingly to the quiet attractions and care of simple scientific truth,—still does, in the end, with a divine instinct, inevitably recognise and acknowledge the right, when the right is faithfully set forth and upheld before it.

This, then, is our policy,—to be true to ourselves, and to suffer no one to be unwittingly wronged; bearing in mind that a collective duty must be carried out by individual exertion. Our reward will assuredly be the allegiance which we covet, and which our Profession merits.

(a) This case does not come within the scope of the Apothecaries' Act, as it has some surgical bearings.

THE WEEK.

Diarrhœa is increasing in London. How much greater must the increase be before the Thames is purified? Will nothing short of an epidemic of cholera hasten the jobbers in metropolitan drainage? In the four weeks since July 4, the deaths from diarrhœa in London have advanced from 65 to 133, then from 150 to 259 last week. No less than 206 young children were killed last week by this diarrhœa, and in all probability as the season advances the deaths will increase. The Medical officers of the Dreadnought report week after week upon the unusual foulness of the foul sewer we call the Thames. Yet the Metropolitan Board of Works and their engineers and Sir Benjamin Hall are playing at battledore and shuttlecock with plans and reports, and accusing each other of delay, while our strong men are weakened and our frail children are killed by the poisonous effluvia from the fetid stream, which may perhaps be purified when some half-dozen Commissioners of Works have become victims of the cholera or typhus they have done nothing to avert—but not before.

We are glad to find that the appointment of a Royal Commission on Medical Reform has been warmly supported at the Annual Meeting of the British Medical Association at Nottingham. Our readers will find an interesting account of this meeting in another column. We may state that the appointment of this Commission may now be regarded almost as settled. The *Morning Post* says Lord Palmerston has expressed himself in favour of the questions in dispute being inquired into by an impartial Royal Commission—adding, in complete accordance with the opinions we have expressed:—"The obstacles to a settlement presented by the antagonistic interests of the Corporations and the Universities, and the urgency, as regards the public interests, of security being provided for at least a minimum amount of knowledge in all licensed to practise the healing art, induce us to look favourably upon this new proposal. All parties have in official documents placed their wishes and opinions on record. What is now wanted is an able and impartial jury to sit in judgment upon these documents, and upon such evidence as may be submitted to it. Can such a jury be obtained? We think that it can. To secure impartiality, the Commission should be composed exclusively of laymen. We are further of opinion that gentlemen, however able and honourable, who have already taken part in the Medical Reform discussions, should be considered as ineligible. What is wanted is a verdict from new and impartial men—men quite open to conviction—quite unprejudiced by past occurrences."

In a review of Dr. Fell's book on Cancer, we expressed the opinion that the respectable members of the University of New York would not regard their associate's doings here with either pride or satisfaction. The July number of the American Medical Monthly published at New York, says:—"Dr. Fell entitles himself 'M.D. of the University of New York,' of which institution, we regret to say, we are informed that he is a graduate. For some time he had an office here, but was better known as a small politician than as a practitioner. It looks astonishingly as if he must be a branch concern of Gilbert and Co., the 'Cancer Doctor,' who occasionally figures in Broadway. New York may well blush for Dr. Fell, but London will have to put on a deeper hue for the Surgeons of the Middlesex Hospital, who have been so humbugged by him."

The General Board of Health has another year of existence doled out to it—not because anybody is satisfied with its constitution or working, but simply because nobody likes, on constitutional grounds, the transference of the power of the Board to the Privy Council. When the Government determine to establish a Ministry of Health, and place it under the presidency of a member of the Medical Profession, the country will place some confidence in this department; but so long as the health of the State is entrusted to fine gentlemen, red tapists, lawyers, or poets, so long will the Board of Health be ridiculed and set at nought.

We are happy to find that a Medical Society has been organized for the mutual assistance and protection of Militia Medical Officers, and that this society is now in active operation. The first annual meeting was held at Oxford, on the 18th and 20th of the present month, and was characterised by the utmost unanimity and good feeling on the part of the numerous assemblage which was collected together. We understand that it is the intention of the promoters of this society to make it permanent, and also to make it available for benevolent objects. Under present circumstances, it appears that no provision exists for the families of Militia Medical officers who die during their period of service, nor is there any fund for the Medical officers themselves if they are overtaken by sickness or calamity; and it is proposed to provide for both classes of objects, as the resources of the society become gradually developed. The case of Dr. Molloy has been adduced as a strong argument for instituting some fund of a benevolent nature in connexion with the Militia service. This gentleman was Surgeon of the Northampton Militia, and being ordered out to Gibraltar, died there of dysentery; but the Government refused to make any allowance or provision for his family. At the present time, when we are engaged in foreign and distant wars, and when our regular army is sent out of the country, its place must be supplied at home by the Militia, and it is surely inexpedient and unwise on the part of the Government to make the position of the Militia Surgeons both onerous and unremunerative, and thus prevent first-class Medical men from accepting Militia appointments. But, as in all other matters, unity is strength, and the best mode in which the Militia Medical officers can attain their object is by joining such associations as that to which we now most willingly draw the attention of the Profession, and to which we wish all prosperity and success.

The Annual Dinner of the Apothecaries' Society took place at the Ship, at Greenwich, on Tuesday evening last. In addition to the members of the Society, who attended in great numbers, the Master and Wardens were favoured with the presence of representatives of the Royal Colleges of Physicians and Surgeons, of the Military Profession, and of several distinguished members of the House of Commons. Among the guests were Drs. Hawkins, Jeaffreson, Risdon Bennett, Spurgin, and Sibson; Mr. Travers, Major-General Sir Edward Cust, Lord John Stuart, M.P., Lieutenant-General Stuart, M.P., Right Hon. Mr. Napier, M.P., Mr. Headlam, M.P., Mr. Briscoe, M.P., Mr. Bowyer, M.P. The greatest harmony prevailed, and the entertainment of the evening was very much enhanced by the eloquent speeches made by the members of the Legislature, that of Mr. Napier, in particular, being exceedingly well delivered. Mr. Headlam, who was warmly cheered, entered into an able statement of the position and prospects of the Medical Reform question in the House of Commons. After alluding to the disadvantages under which the late Bill was laid before the House, and the almost unprecedented majority for its second reading, notwithstanding the opposition of the Government, Mr. Headlam pointed out the solid advantages which must result from having such a triumphant majority on the records of the House. He further remarked that the Medical Profession existed not for

a Parliament, but for all time; that so long as the diseases and sufferings incidental to human nature depended for their mitigation and relief on the Medical Profession, and the progressive advancement of Medical science, so long must its members possess an unbounded influence upon the public at large, secure in their own inherent independence from the destructive enthralment of ministers and governments. Above all, the honourable member impressed upon those present the necessity of being *true to themselves*, and that then their early success in obtaining a Bill suitable to the requirements of the times, and consistent with their own dignity and independence, would be certain. The member for the University of Dublin, in an eloquent and enthusiastic speech, insisted upon the necessity, first recognised by the University of Dublin, of a higher standard of general education for students intended for the Medical Profession, and concluded by reiterating the advice of the honourable member for Newcastle—that we should be true to each other, and agreed among ourselves.

Dr. J. F. Churchill, whose application to treat patients at the Brompton Hospital with a secret remedy we noticed some weeks ago, has presented a paper to the Academy of Medicine of Paris, in which he developes the nature of his treatment. The cases of phthisis which he records amount to thirty-five, of which all were either in the second or third stage of the disease—that is to say, they had either softened tubercles or cavities in the lungs. Of these, nine are said to have recovered completely, eleven improved considerably, and fourteen died. Dr. Churchill considers that the proximate cause, or, at all events, an essential condition of the tubercular diathesis, is the decrease in the system of the phosphorus which it contains in an oxygenizable state; and that the remedy is therefore to be found in the use of some preparation of phosphorus, uniting the two conditions of being at the lowest possible degree of oxidation, and, at the same time, in such a state as to be directly assimilated. The hypophosphites of soda and lime are the combinations which hitherto seem best to fulfil these two requisites, and they may be given in doses varying from ten grains to one drachm in the twenty-four hours. The effect of these salts upon the tubercular diathesis is said to be immediate, and it is alleged that the general symptoms of the disease disappear with great rapidity under their use; and, moreover, that the hypophosphites of soda and lime are certain prophylactics against tubercular disease. The physiological effects which Dr. Churchill has observed to be produced, are considered by him to be of a twofold character; these salts, on the one hand, increasing the principle which constitutes nervous force, and on the other, acting as blood-producers—being superior to all other medicines of that class hitherto known. The hypophosphites of soda, potash, lime, and ammonia, seem to possess all the therapeutical properties formerly attributed by different observers to phosphorus itself, without any of the danger which attends the use of that substance. These are the views of Dr. Churchill; and only time and experience will show whether they are founded in truth. It is well that he has removed the veil of secresy from his proceedings, and has openly published his mode of treatment, and the theory upon which it is based. The Academy of Medicine of Paris has resolved that the paper shall be referred to a Committee, consisting of MM. Louis, Trousseau, and Bouillaud; and in their hands we feel convinced that the claims of Dr. Churchill and the interests of science will alike be protected.

The trial and condemnation to death of Thomas Fuller Bacon is one of those curious facts which, after the termination of such cases as the Darlington trial, go far to prove that our justice courts are mere solemn farces, in which the principles of logical evidence and deduction, and of the importance of life, are ignored or set at nought. The man Bacon was tried, not on the count of murder, but of attempt to murder. By the wildest stretch of circumstantial evidence, it can scarcely be shown that he gave arsenic to the deceased woman. The reasons for supposing arsenic to be the cause of death were the preservation of the body, and the fact that Dr. Taylor found evidences of arsenic, three-quarters of a grain in all parts, together with traces of antimony and mercury. How much antimony, we do not so strictly ascertain. Now one might ask, in any case, is the presence of three-quarters of a grain of arsenic sufficient to give evidence that death occurred from arsenic? It may be argued that the presence of arsenic must be taken together with the symptoms. In this case the symptoms were considered by Mr. Barber, at the moment he saw them, as indicating choleraic disorder; and his first and unbiassed opinion was at least as likely to be correct as his second. Dr. Taylor is stated, also, to have said that the arsenic found in the body of the deceased Mrs. Bacon must have been taken within a month of death. This opens the interesting question, how long it takes, after an administration of arsenic or antimony, for the poison to be thrown entirely out of the system. If one of the lower animals may in any way represent a man, and antimony may represent arsenic, there are physiologists who would say very boldly that a month is no representative of the interval of time required for the elimination of both these poisons. However, these points all require to be answered experimentally; and the sooner a commission of Medical men can settle such questions, the better for medicine and the world. But even granting that arsenic were the poison, it is known that the man's wife had a mania for killing, and that she practically brought her mania into action once at least, so that the supposition is not extreme that the woman was the one into whose ear the tempter instilled the deed. Yet sentence of death is recorded against Bacon. If hanging, even upon direct evidence of guilt, be other than another name for murder, let popular vengeance have its gratification, and let a well-known silly old man, who boasts that he has seen sixty executions, go to the sixty-first. But Bacon must not be hung on such circumstantial evidence as we have discussed.

Much excitement has recently taken place in Virginia, U.S., owing to a charge brought against a "Vaccine Agent" of that State. It seems that there are two of these agents appointed, one at a salary of 500 and the other of 300 dollars; in consideration of which they are expected to furnish to all applying for it genuine vaccine virus *gratis*, a matter often attended with difficulty, owing to the neglect of those who had received supplies in returning to the agent some of the virus that has resulted from the use. Cases of small-pox having appeared at Barhamsville, several citizens were vaccinated from virus supplied by the agent, Dr. Peticolas. These persons became affected with genuine or modified small-pox, according as they had or had not been previously protected. Some fifty persons so suffered, and the indignation excited against the agent became extreme. Nevertheless, it seems that Dr. Peticolas was usually very careful in selecting his virus, rejecting that from diseased persons, and gladly paying for that which could be guaranteed as genuine, to the great diminution of a very moderate salary for very onerous services. It seems that it is quite impossible he can, in times of public panic, procure an adequate supply from his own patients, and has to trust to the vaccine crusts forwarded to him. The physician appointed by the governor to investigate the matter comes to the conclusion that the crusts employed in this case must have been taken from "some patient who had been exposed to the contagion of small-pox, in whose blood

the disease was incubating when he was vaccinated;" that the variolous affection was sufficiently matured to modify the vaccination, and that results such as have been narrated might well arise from the use of the matter, or the crust from such a patient. Such crusts, he adds, are not distinguishable from genuine crusts.

The Royal Commissioners on the Medical Department of the Army have now closed the examination of witnesses, and it is expected that they will publish an *interim* report in the course of two or three weeks; the full report, it is expected, cannot possibly be ready before December. It has been thought desirable to prepare the *interim* report for the information of Government, in case of emergency arising before the winter. Among the witnesses who have been examined, are Sir John Liddell, Dr. A. Smith, Dr. Meyer, Dr. Parkes, Dr. Farr, Dr. Sutherland, Dr. Alexander, and Mr. Rowdon.

PROGRESS OF MEDICAL SCIENCE.

Selections from Foreign Journals.

CASE OF OPERATION IN IMPERFORATE RECTUM.

By M. FOUCART.

M. Foucart observes that without being frequent, cases of imperforate anus are not exceedingly rare, and among them one of the varieties oftenest met with is that in which the lower extremity of the rectum is wanting in a greater or less extent. In such cases it is often very difficult, and sometimes completely impossible, to reach the rectum by the coccygean region; and what is worse, in the cases in which this has been accomplished, most of the children have died in the course of a few days, in consequence of the production of acute inflammation, which has become propagated to the surrounding parts, or consecutively from a general infection of the economy produced by the passage of the excrementitious matter through the cellular tissue intervening between the skin and the lower extremity of the rectum.

He was called to the infant, whose case he relates, within twenty-four hours after its birth. The anal region exhibited not the least trace of an aperture, a slight raphe extending only to the scrotum. No sense of fluctation whatever could be perceived. Having made an incision, and his finger passing for two centimetres through cellular tissue without attaining the gut, M. Foucart sent for M. Maisonneuve. This surgeon at first endeavoured, by opening the blades of a dressing forceps, to enlarge the canal already formed without dividing the tissues. This done, he introduced his finger, but failed in reaching the rectum. He then gently passed up a small trocar, following the course of the rectum as much as possible, and thought he felt a sensation as if he had entered a cavity. Meconium followed, and as there could be now no doubt that the rectum existed at about four centimetres distance, an incision was made into it, by passing a bistoury along a grooved director. A free discharge of meconium took place, and the wound was left to itself, strict injunctions being given to observe the greatest cleanliness. By the third day the stools had assumed their normal colour and consistency.

From the 4th Feb., when the operation was performed, no application was made to the wound, the keeping this only being trusted to the discharge of the fæces. About the 15th or 16th, the stools began to diminish in quantity, without the child seeming to suffer in consequence; but as none were passed on the 19th and 20th, it was evident the aperture had closed. On the 21st a grooved director was introduced into the opening, which had become very narrow, and an incision of about two centimetres was made, which gave rise to an abundant discharge of fæces. The skin alone had however been divided, for on passing in the finger, the canal leading to the rectum was found as large as at first. Since that time, large tents of charpie have been introduced each time after a stool has been passed. A month has now elapsed, and the child seems thriving, and likely to do well.

M. Foucart observes that justifiable as is the performance of the operation for artificial anus, in the adult suffering from organic diseases of the rectum, and who can choose for himself, he does not think it is justifiable to entail so miserable a condition upon a child, for the sake of avoiding some additional danger, in seeking for the extremity of the rectum. This instance of success, as well as another which occurred to Amussat in 1843, and two others which M. Maisonneuve has met with, serve to show that the accidents which Boyer declared to be absolutely prohibitory of operations when the rectum lay high up, do not always occur.

The child seen, three months after the operation, was found to be going on quite well.—*Gaz. des Hôp.* 1857. Nos. 35, 63, 70.

ON THE TREATMENT OF CHANCRE BY ACETIC ACID.

By Dr. COLLMANN.

Dr. Collmann having seen, more than two years since, an account of the successful and rapid treatment of chancre by means of acetic acid, commenced its employment; and reports that in some fifty cases of primary sore in which he has employed it, it has remarkably fulfilled the expectations held out. In recent chancre, indeed, he regards it as a true panacea, while in neglected indurated chancre it hastens the healing process materially.

In recent chancre he at once cauterizes the sore with pure acetic acid, applying it by means of a glass tube thoroughly to the part, and preventing its diffusing itself around by means of charpie. The pain caused is great, and may, in the sensitive, cause fainting. A whitish spot is the immediate result, and cold water dressing is applied. On the third day, at latest, a gangrenous eschar separates, exhibiting a very clear surface, which will heal by common dressing, but to which the author, for the purpose of encouraging suppuration, often applies night and morning a little ointment, composed of ung. basilic, ʒi., hyd. præcip. rub. gr. v., cleaning the sore with camomile infusion. By the tenth day at latest, and often before, the sore is quite healed. On the first and third day an active purgative is administered. Until the sore has healed the diet should in general be spare, although some patients have required full diet and wine. In fine weather the patient need not be confined to the house. When after the fall of the eschar the sore is found not to be clean, the acid should be again applied, and may even have to be repeated a third time. The cicatrix that results is soft, or speedily becomes so under the employment of camomile fomentations. The author, as yet, has met with no example of bubo among his cases; nor has he observed any secondary symptoms, although he has in several instances treated the same patient twice for chancre, and in one instance five times. When the chancre has been neglected, and has become indurated, if the sore be still open it must be cauterized in the same way; but in such cases mercury or iodine should also be given. The sore often heals with remarkable promptitude.

Dr. Collmann makes some additional observations upon the treatment of secondary syphilis by corrosive sublimate, during which he says the patient may often pursue his usual avocations, regardless of exposure to vicissitudes of weather.—*Deutsche Klinik*, 1857, No. 12.

EXCERPTA MINORA.

Mineral Waters in Phthisis.—M. Grimaud terminates a series of papers upon this subject with the following conclusions:—1. Although not constituting a specific treatment, they are superior in utility to many means hitherto employed. 2. Employed at the commencement, they may completely arrest the disease, or at all events render it stationary for years. In the second stage the chances of success are less; while in the third, their employment is usually hurtful. 3. The waters which possess an undoubted efficacy are the sulphureous, and especially when also alkaline. 4. The sphere of action of the saline waters and those of Ems is much more limited.—*Union Méd.* No 77.

Eczema of the Nares.—In pruriginous eczema of the nares, M. Trousseau employs with great advantage subnitrate of bismuth mixed up with mucilage of quince seeds into a paplike consistency.—*Journal de Chimie Méd.* June.

Formula for Valerianate of Ammonia.—During the intervals of the publication of the different editions of the French Codex, no new preparation can be lawfully sold without

having received the sanction of the Académie de Médecine. The following is MM. Laboureur and Fontaine's formula for valerianate of ammonia, published in the *Bullétin*:—Place a thin layer of pure monohydrated valerianic acid in a flat capsule, completely closed by a bell, and admit anhydrated ammoniacal gas until the acid is completely saturated. It is to be kept in small quantities in completely closed vessels.—*Bull. de l'Acad.* 1857, p. 770.

Chloroform Liniment in Burns.—M. Bargiacchi states that he has found the extreme suffering produced in bad burns completely relieved by means of a liniment composed of chloroform and cod-liver oil.—*Bull. de Thérap.* June, p. 516.

Case of Bronzed Skin.—M. Levrat-Perroton relates a case recently met with at the Hôtel Dieu, Lyons, in which marked bronzed colour of the skin was observed in a chloro-anæmic woman, thirty years of age. The supra-renal capsules were enlarged to three times their natural size, and contained tubercular matter.—*Gaz. des Hôp.* No. 80.

PROVINCIAL CORRESPONDENCE.

BRITISH MEDICAL ASSOCIATION.

Nottingham, Wednesday Evening.

The meeting of this Association is going on very pleasantly. It was not anticipated, at any time, that the present would be so large or influential a gathering as that of Birmingham, last year. Up to the present time, about eighty members have presented themselves at the reception-room of the Association.

The early members arrived yesterday (Tuesday morning). Sir Charles Hastings, the President of the Council, was there, and the Medical Reform Committee met at two o'clock. Here the report was concocted which caused so great discussion this morning. At three o'clock, the Committee of Council met, and at four the Council itself. At eight o'clock, in the large hall of the Assembly rooms, the general meeting of the Association was held. About fifty members were present. Dr. Johnstone, of Birmingham, took the chair, and handed it over to his successor, Mr. Booth Eddison.

The Chairman invited attention to the remarkable objects in Nottingham, and concluded with a well-merited compliment to Dr. Marshall Hall, who is a native of Nottingham, and who is too ill to attend this meeting of the Association in his native place. Then came the report of Council, which was read by Dr. Williams. Sir John Forbes moved that it be adopted, but Mr. Husband insisted that it be only received. The latter triumphed. Dr. Horner, of Hull, of homœopathic notoriety, who is a Vice-President of the Association, was admonished by the Council in their report to retire. This did not suit some of the fiery spirits of the Association; and Dr. Budd, of Bristol, moved that his name be erased from the list of Vice-Presidents. This was seconded by Mr. Hutchinson, and carried unanimously. Much discussion ensued, and no one could doubt that the members of the Association were earnest in their opposition to homœopathy. But who will go next? it may be asked. Dr. Horner, at Brighton, made one of the most brilliant speeches in opposition to the very folly he has embraced. The rest of the meeting passed off very amicably, with the usual thanks, speeches, etc.

This morning saw the members all alive. Those who had made early breakfast went to the castle, whilst the more practical visited the manufactories of hose, gloves, silk, and lace. The *new* Council (yesterday the *old* Council) met at ten o'clock, to choose a Committee of Council, and a place for next year's meeting. Edinburgh has been fixed on. "Auld Reekie" has put out its paw to grasp the *British* Medical Association, after having so long repudiated the *Provincial*. Great joy was manifested when the place of meeting was known; and the good folks of Edinburgh will see many strange faces next August. Who is to be President? Who to take office? Difficult questions, with no branch to communicate with. Nevertheless, it will be a good meeting at Edinburgh.

At 11 o'clock the general meeting commenced. Dr. Henry read the report of the Judicial Reform Committee. The Committee were very sorry, but what could they do? They had promised to support Lord Elcho's Bill last year, but then the Colleges opposed; and as the Government had promised when all were agreed about a Bill they would pass it, the Committee thought they should ensure the passing of Headlam's Bill, by giving in to it though it was the Bill of the Colleges. An angry discussion followed the reading of the report; Dr. Budd of Bristol in an eloquent speech gibbeted the Committee. Dr. Lankester defended the Committee on the ground of expediency, admitting that if he had known that the Government was going to take them in, he would not have sold his conscience. He strongly recommended the Government alternative of a Royal Commission. Mr. Nunnely of Leeds protested against Headlam's Bill, and urged the Royal Commission. Dr. Sibson expressed his determination to die for the Colleges, and poured contempt on a Royal Commission. Sir Charles Hastings read a letter from his son, Mr. George Hastings, advocating a Royal Commission. The discussion terminated by adding Dr. Budd, Dr. Richardson, Dr. Davis, Dr. Vere, and Mr. Prichard, to the Medical Reform Committee.

The members met again at 2 o'clock, when Mr. Southam read an address on Surgery, in which he took up the treatment of cancer, and commented very severely on Dr. Fell and the Middlesex Hospital authorities. Dr. Stewart defended his colleagues. Mr. Newnham then read the Report of the Medical Benevolent Fund, which is in a flourishing state. A memorial was read by Mr. Nunnely, to be presented to Lord Panmure, Sir Charles Wood, and the Royal Army Medical Commission, with regard to the treatment of Medical men in the Navy and Army.

Dr. Lankester gave a report on the recent progress of our knowledge of the structure, development, and treatment of human entozoa. A soirée takes place to-night at the Mechanics' Institute. To-morrow Dr. Robertson reads the address on medicine; and papers are to be read by Dr. Edward Smith, Mr. Henry Thompson, Mr. Gamgee, Mr. Hutton, Sir Henry Cooper, Dr. Sibson, Mr. G. Sloman, and others.

GENERAL CORRESPONDENCE.

RANK, PAY, AND DUTIES OF ARMY SURGEONS.

[To the Editor of the Medical Times and Gazette.]

Sir,—In my letter, which you published on June 20 last, page 625, I endeavoured to show the injurious effects of the present system of confidential reports upon the Medical Department of the Army. No attempt has been made in any quarter to question the accuracy of the statements there made, and I therefore proceed to the consideration of other questions bearing still more closely on the efficiency of the Medical Department. In the present letter I propose to point out the great disadvantage to which our sick soldiers are exposed in large military hospitals by the present distributions of professional duties among army surgeons, and the mischievous results of withholding from the executive officers of the service the power and control to give due effect to their professional knowledge in the treatment of disease, and in providing measures for the general sanitary condition of the wards.

It is not, perhaps, generally known that there are no less than five different grades or ranks among army surgeons, viz., Inspector General, Deputy Inspector General, First Class Staff Surgeon, Second Class Staff, or Regimental Surgeon, and Assistant Surgeon. To these during the late war were added Acting Assistant Surgeons and Hospital Dressers. As a general rule, to which there were very few exceptions, the medical officers of the three higher grades were exclusively engaged at Scutari in administrative duties; so that the treatment of disease, and the management of the sick devolved upon the two junior grades. Of these, the Second Class Staff Surgeons were so few in number from the necessity of employing all available men of that class for regimental duty, that in the Barrack Hospital only *one* was attached to each division of about 400 beds. It therefore happened that a very large portion of the duty of prescribing for the sick fell upon the youngest officers, most of whom were Acting Assistant Surgeons, and Hospital Dressers. By that arrangement, in regard to professional duties, it will be seen that those medical officers who, by their previous experience as Regimental Surgeons, might reasonably be considered best qualified to distinguish and treat disease, were the least available for that important duty.

It always appeared to me, both from my own observation,

as well as from declarations I have heard made, that strictly professional duties were rather held in disparagement by senior army surgeons; and that their great object of ambition seemed to be to cut as short as possible the period for the performance of professional duties, and to strive for promotion to the rank in which they would be engaged in superintending and directing others. In civil hospitals, as indeed universally in civil life, medical men of the very highest attainments, men of acknowledged pre-eminence and of world wide reputation, such men as our Astley Coopers, and Brodies, our Brights, and our Watsons, to the most advanced period of their lives have regarded the treatment of disease, and the simple alleviation of human suffering, to be the highest prerogative of their art and the greatest honour and object of their lives. As the Medical Department can never become other than an essentially Civil Department attached to the army, so it must always be subject to the same principles for its regulation as those which govern the same profession in civil life. It would I believe conduce immeasurably to the advantage of our sick soldiers as it would undoubtedly to the credit and true interests of the Medical Department as a service, if the same rule for professional exertion were held in view in the army.

In order that the professional ability and experience of the senior army surgeons, who the by present system are chiefly occupied in administrative and non-professional duty, may be made available in the immediate treatment of the sick, I believe the first and most essential step would be to give full effect to the principle of competitive examination, which has been introduced within the last few months for the admission of candidates into the Medical service. Such a measure strictly and impartially carried out would secure a body of Medical officers of high professional qualifications, who would no longer require the same amount of direction and supervision that has hitherto been considered necessary for men of their class. Such men on their first admission into the service as Assistant Surgeons might be appointed to do duty at some large military hospital or station, to become practised in those duties which are specially required of army surgeons —and if possible to attend lectures on military surgery. After a fixed period of two or three years' service, as Assistant Surgeons, it appears to me very desirable that such men should be promoted, as a rule, to the rank of full surgeons— that is to say of Regimental Surgeons. Such early promotions to that rank, as compared with past custom, may at first mention appear questionable, but there are many grounds on which I believe it would greatly tend to the efficiency of the department, at the simple sacrifice of the unnecessary and unmeaning distinction in titles of Surgeon and Assistant-Surgeon.

In the first place, men who have proved their professional competence, and I may say superiority, by passing a severe competitive examination, with the subsequent training of two or three years as Assistant Surgeons, may fairly at that period be considered qualified for the entire performance of the duties of a Regimental Surgeon.

It would be poor encouragement and compensation to such men to expect them for a longer period to remain under the same control and authority of the Regimental Surgeon, and to be engaged in the same course of duties as Assistant Surgeons are by the present War Office regulations, and by present usage.

The control and authority of one grade of Medical Officers over another, *to be useful*, should always be derived from superior professional claims. On any other principle, men will never be disposed to yield any useful deference, even though they may be compelled to make an outward show of it. They may be made to go through a certain form and routine of duty, but the process is undoubtedly humiliating in its effect, and must tend to discourage and depress independent mental exertion, and ultimately lead to the extinction of that degree of moral courage which is necessary to assert and maintain independent principles of action, under sudden emergencies, or during periods of trial and difficulty.

Without admitted Professional superiority on the part of those invested with the power to superintend and direct, the Professional services of subordinate Medical officers, according to my experience, have always been less effective and less beneficial to the suffering men, than when due scope and independence have been given for the unfettered exercise of Professional skill.

In the second place, it is well known, that according to present usage, if the Assistant Surgeon of a regiment is a reasonably good man, it is frequently the custom for the Surgeon to divide the sick equally between himself and the Assistant Surgeon. Why not, then, at once abolish the needless distinction in rank? Equal competence, and equal share of duty, may surely, with advantage, be accompanied by equality of rank and responsibility. I believe that if you place confidence in men, so far entitled to it as those must be who have passed a strict competitive examination, and let them feel their full responsibility, they will labour with far greater zeal, and with much better results, than if you subject them to the orders and directions of others, scarcely at all, if in any degree, more competent than themselves. I am also strongly of opinion that all executive Medical Officers should be placed on the same footing, that is to say, that in all professional matters they should have the same control, and with it, of course, the same degree of responsibility, subject only to the full authority of the principal Medical Officer of the Division or Station, who would be either an Inspector General, a Deputy Inspector General, or in case of emergency, the senior executive officer. The only distinction I would make would be to regulate pay and relative army rank, according to length of service. In regard to pay, an Assistant Surgeon might commence with seven and sixpence per diem, to be increased to ten shillings per diem, after the fixed period of two or three years' service above recommended, when he would become full surgeon. After ten years' service I would suggest that it be increased to fifteen shillings, and after fifteen years' service to £1, with no further increase until promotion to the rank and administrative duty of Deputy Inspector General.

In regard to relative army rank, all Assistant Surgeons to rank as lieutenants, with the same allowance; all Surgeons under twelve years' service to rank as captain, with the same allowance, and with the title of Regimental or Staff Surgeon; all executive officers above twelve years' service to hold the relative rank of major, with the same allowances, and with the title of Senior Staff Surgeon. Under such a change the titles of First and Second Class Staff Surgeons, which have always been found objectionable, would be abolished, and those officers at present holding the title of First Class Staff Surgeons, would hold instead that of Senior Staff Surgeons, with the same relative army rank as at present. The difference that the proposed changes would make to officers of this grade would be a slight increase of pay, and that their duties would be *entirely executive instead of administrative*. In other words, First Class Staff Surgeons would no longer exist either in title or function. In the case of the next grade, namely, the regimental or Second Class Staff Surgeons, those officers under twelve years' service would retain their present relative army rank and allowances, viz., of a captain, and those above twelve years' service would hold higher relative rank and allowances, viz., of a major. In regard to pay, as it would affect this rank, those above ten years' service would receive an increase of two shillings per diem, and those above fifteen years of seven shillings. The increase in the latter instance would be an equivalent for the increase of pay, which officers above fifteen years' service would, by the present system, receive on promotion to the rank of First Class Staff Surgeon, now proposed to be abolished. Some few instances no doubt exist of full regimental Surgeons under ten years' service who at present receive thirteen shillings per diem. In such cases as now exist, and which must shortly disappear, it would be desirable that their pay should be uninfluenced by the proposed changes.

In respect to titles, those officers attached to regiments under twelve years' service, would hold the same title as at present, those about that service would be called Senior Surgeons. The officers of that grade on the staff would be simply styled Staff Surgeons, and those above twelve years would drop their present somewhat disparaging prefix of second class, and become Senior Staff Surgeons. With regard to the next rank, the Assistant Surgeons above the period to be fixed, of two or three years' standing, would have their pay increased by two and sixpence per diem, and be promoted to the rank of full Surgeon with the relative army rank and allowances of captain. These rates of pay are based on the supposition, that the increase of pay to army Surgeons generally, which has been advocated on all hands, and which was specially recommended by the late Select

Committee of the House of Commons, is now about to be carried out; and the above-mentioned figures are recommended simply to carry out the object of providing due distinction and remuneration to Medical officers in proportion to their length of service, without placing one grade under the authority of another.

These changes would, moreover, lead to increased efficiency in the treatment of the sick. The number of executive officers would be largely augmented by the addition of the present First Class Staff Surgeons, whose professional knowledge, aided by their mature years and experience, would be of infinite value in the treatment of injury and disease. I also believe that great additional strength would result to the service by duly encouraging and raising to a position of equal professional independence and power the other executive officers of the service. For all purposes of discipline and administration, as well as for the due supervision of professional conduct, I believe the authority of the Inspector Generals and Deputy Inspector Generals would prove amply sufficient. In another letter I propose making a few concluding remarks on some other points connected with the working of the Department. I am, Sir, &c.

29, Nottingham-place. HENRY MORTIMER ROWDON.
July 28th, 1857.

ON THE TREATMENT OF TALIPES VARUS.

[To the Editor of the Medical Times and Gazette.]

SIR,—It is usual to substantiate statements, or to withdraw them when they are objected to. In your number for July 11, Mr. Lonsdale made a statement which he cannot substantiate, namely, "Mr. Brodhurst says that the scaphoid bone offers the greatest obstacle in the treatment of varus." To this statement I gave, in the following number of your Journal, an unqualified denial. Yet Mr. Lonsdale does not wholly retract his statement, but he shifts his ground, and says that by implication I assert that which I have already denied; and to prove his statement he quotes three passages, which, garbled as they are, only prove that Mr. Lonsdale's second assertion is as weak as his first. I am sure that every candid and intelligent reader will admit not only that the statement above quoted is not to be found in my communication, but also that it is not implied either in the quotations made by Mr. Lonsdale, or in any other sentence of my writing.

The passages quoted by Mr. Lonsdale are the following:—

1. Speaking of the most severe cases of adult congenital talipes varus, I state that "it is always difficult to overcome this rotation of the scaphoid; and, indeed, it may not be possible, even after division of the tibial tendons, to depress the anterior portion of the foot inwards sufficiently to overcome rotation, without dividing some of the ligamentous structures on the inner side, and in the sole of the foot." I have nothing to retract from this statement; and I deny that by implication the scaphoid bone may be supposed to be, from this sentence, the greatest obstacle in the treatment of varus.

2. "It is not possible to adopt a substitute of any kind for this necessary replacement of the scaphoid bone, without which the limb must ever remain lame, and which having been accomplished, the cuboid bone is no longer a real obstacle to the complete eversion of the foot." I have already explained that I am justified, when speaking of excision of the cuboid bone, in saying that this bone is not a real obstacle to the eversion of the foot; and Mr. Lonsdale is of the same opinion, for he says, "This difficulty (the replacement of the cuboid bone) can be overcome by mechanical means, and this is the best argument against the necessity for removing the bone." Even Mr. Lonsdale would scarcely deny that it is necessary to replace the scaphoid bone in its normal position, yet he objects to the statement, "It is not possible to adopt a substitute of any kind for this necessary replacement of the scaphoid bone." Why, if it is necessary to replace it, it is equally necessary to adopt treatment for the purpose.

3. "The difficulty of overcoming rotation of the scaphoid bone appears to some to be so great as to be almost insuperable;" which sentence Mr. Lonsdale chooses to construe thus, "The difficulty of overcoming rotation of the scaphoid bone appears to Mr. Brodhurst to be so great as to be almost insuperable." I say that Mr. Lonsdale chooses to construe me thus, for otherwise this sentence could have no application to the question.

Now, Sir, I am much indebted to Mr. Lonsdale for giving so much importance to my statements. I am also indebted to you for the space which you have kindly devoted to a subject which might have been more worthy of your columns. I hope it may be long before I again meet Mr. Lonsdale as an antagonist; and in taking leave of him, I may say that he is at liberty to construe my words as he pleases, so long as he does not misstate my opinions. I am, &c.

BERNARD BRODHURST.

Brook-street, July 25, 1857.

PROFESSOR SYME AND MR. SQUARE ON THE SUBCUTANEOUS REMOVAL OF LOOSE CARTILAGES.

[To the Editor of the Medical Times and Gazette.]

SIR,—I shall be obliged by your publishing the following extract from a letter addressed to me by Professor Syme, dated July 13, 1857:—"With reference to what you say in the *Medical Times and Gazette* of Saturday last as to my having adopted the subcutaneous method of removing cartilaginous bodies at the suggestion of Mr. Liston, and with a modification proposed by him, I beg to inform you that this operation was an original idea of my own, and was communicated by me to Mr. Liston, before any account of M. Goyraud's procedure had reached this country. During a temporary estrangement which happened between us subsequently, Mr. Liston published a letter to Sir P. Crampton, giving the sole merit to M. Goyraud. But in the *Edinburgh Monthly Journal* for March, 1841, and in my contributions to the Pathology and Practice of Surgery, published in 1847, at page 282, you will find an account of my first operation, which was performed in the Royal Infirmary on February 1, 1841."

It appears from this extract that Professor Syme first conceived the idea and performed the operation; and to him, therefore, the claim of originality is justly due.—I am, &c.

WILLIAM JOHN SQUARE,
Surgeon to the South Devon and East Cornwall Hospital.

Plymouth, July 25, 1857.

BRAN BREAD.

[To the Editor of the Medical Times and Gazette.]

SIR,—I find that the improved formula for the manufacture of the bran bread for diabetic patients (which you did me the favour to publish in your No. for May 2), ceases to be an improvement during the present extremely hot weather, and that it is better to make the bread, as directed in my paper, published in the Medical Chirurgical Transactions for 1855, viz. without the soda and acid, and in four or five cakes, rather than one loaf. Prepared in this way, and kept dry, it answers well, and is very little less palatable.

I may add that the bran loaf and bran biscuits are now exclusively used, and with the most satisfactory results.

I am, &c. JOHN M. CAMPLIN.

33, Compton Terrace, Islington N., July 27, 1857.

RESPONSIBILITY IN ADMINISTERING CHLOFORORM.

[To the Editor of the Medical Times and Gazette.]

SIR,—While the Academy of Medicine of Paris is discussing the responsibility of administering chloroform, perhaps you will find a corner in your Journal to ascertain the opinion of British Practitioners on the following practical points:

1. An Accoucheur administers chloroform alone in ordinary labours; he also gives it himself, and while the patient is under its influence uses the forceps.

2. A Surgeon administers it himself, and then proceeds to evulsion of the toe-nail, no other Surgeon being present.

3. A Surgeon practising dentistry administers it, and then proceeds to extract stumps, no other Surgeon being present.

Now, it being generally thought that the whole attention of a qualified man should be devoted to the chloroform, can the above proceedings be held justifiable, and in case of death would not the Surgeon be blameworthy?

I am, etc. T. B. K.

UNIVERSITY COLLEGE, LONDON.

The annual distribution of prizes to the students who have distinguished themselves in the faculty of medicine took place on Wednesday, in the theatre of the college.

The chair was taken by the Right Hon. Lord Brougham, the president of the college, and the theatre was densely filled with spectators.

The prizes were distributed in the following order, many of the recipients being loudly cheered as they took from the hands of the noble president the medals and certificates of honour:—

Prize for General Proficiency (£40), 1855-56.—James Gibbs Bake.

Anatomy.—(Professor Ellis)—Senior Class: Gold Medal, Richard Wm. Garnham; 1st Silver Medal, Sidney Ringer; 2nd Silver, William Edward Allen: Certificates, Henry J. Alford, Augustus Mawley, George Hare Philipson. Junior Class, Silver Medal, F. William Gibson; Certificates, Simon Balinfante, A. Charles Gaye, Thomas Charles Kirby.

Anatomy and Physiology.—(Professor Sharpey, M.D.)—Gold Medal, Felix H. Kempster; 1st Silver, Leonard Emanuel; 2nd Silver, Eustace Smith; Certificates, William Edward Allen, S. Hoppus Adams, and R. W. Garnham, *eq.*—Alexander P. Dowson.

Chemistry.—(Professor Williamson.)—Gold Medal, Francis D. Harrison; 1st Silver, S. Ringer; 2nd Silver, Isidore B. Lyon; Certificates, Albert W. Leachman, Henry S. Tabor, Francis Cook Matthews. Birkbeck Laboratory Students.—Gold Medal, Owen Crofton; Silver, F. C. Conington; Certificates, Henry Henwood, William Vaughan Russell, Edgar Eldred, and George Hopper, *eq.*—John Davies, Samuel Hughes, William Martin, William Chard, and William Carling, *eq.*

Comparative Anatomy.—(Professor Grant, M.D.)—Gold Medal; A. Osmond Black; Certificates, William J. Beaumont, Rajendra Chandra Chandra.

Surgery.—(Professor Erichsen.)—Gold Medal, Thomas Howkins; 1st Silver, George E. Jeaffreson; 2nd Silver, Volcy Pougnet; Certificates, George F. White, George Hare, and Rajendra Chandra Chandra, *eq.*—Jeremiah M. Donne, Charles E. Prince.

Medicine.—(Professor Walsh, M.D.)—Gold Medal, William G. Groves; Silver, Albert Buchanan.

Pathological Anatomy.—(Professor Jenner, M.D.)—Gold Medal, Leonard Emanuel; Silver Medal, Augustus Mawley; Certificates, George H. Philipson, Frederick Jessett.

Medical Jurisprudence.—Gold Medal, William Edward Allen; Certificates, J. B. Lyon, Albert Buchanan, R. W. Garnham, Robert Craithwaite, John T. Seccombe.

Midwifery.—(Professor Murphy, M.D.)—Gold Medal, Alexander Osmond Black; 1st Silver, Albert Buchanan; 2nd Silver, Henry Hemsted; Certificates, Charles E. Orme, Robert Furze, W. O. Procter, W. E. Allen, Richard James, Thomas C. Kirby, R. W. Garnham, and G. Metcalf, *eq.*—John Thompson, J. T. Seccombe.

Ophthalmic Medicine and Surgery.—(Professor Wharton Jones.)—Silver Medal, E. Wynne Thomas.

Materia Medica and Therapeutics.—(Professor Garrod, M.D.)—Gold Medal, Albert A. Leachman; Silver Medals, *eq.*, Eustace Smith, A. J. B. Squire; Certificates, Charles H. Marriott, Leonard Emanuel, and S. Ringer, *eq.*—Berkeley Hill and F. W. Gibson, *eq.*—Alfred Woodforde.

Practical Chemistry.—(Professor Williamson.)—Gold Medal, Henry James Alford; Certificates, William E. Petty, William E. Allen.

Fellowe's Clinical Medals.—(Professor Parkes, M.D.)—Gold, Winter Term, David Richards; Gold, Summer Term, Rajendra Chandra Chandra.

At the conclusion of the ceremony,

The noble Prfsident addressed the assembly, and said that little remained after the pleasing spectacle they had just witnessed, except to congratulate the college upon the great success that had attended the study of Medical science. That success had been testified not only by what they had witnessed that day, but by the degrees which had been conferred on the students by the London University. This was a most gratifying indication—he would not say test—of the advantages which the college conferred and enjoyed. (Hear, hear.) He had carefully avoided using the word "test," as anything more prostituted of late years than the hateful word "test" had been it would be impossible to imagine. (Hear, hear.) It only remained for him to congratulate the students, and the professors through whose diligence, learning, and ability the honours had been obtained. (Applause.)

The noble lord then retired, and Mr. Taylor, the treasurer of the college, having been called to the chair, a vote of thanks was unanimously passed to Lord Brougham for presiding.

LAW INTELLIGENCE.

BLOOMSBURY COUNTY COURT,

July 30, 1857.

—— *v.* Kahn.

In this case the plaintiff, a clerk in the office of a mercantile firm, and who had been eleven years in his situation, sued the defendant, Dr. Kahn, the proprietor of the museum in Coventry-street, for the sum of £20, which was said to have been obtained from him by fraud. The whole sum paid by the plaintiff was £51 1s., but the amount was reduced to £20 in order to bring it within the jurisdiction of the County Court. Mr. Bowen May appeared for the plaintiff, and Mr. Barnard for the defendant.

The plaintiff, who was first called, stated that he went to Kahn's residence in August, 1856, at which time he was suffering from a slight discharge, especially after making water. As soon as he presented himself, Kahn said "You have got spermatorrhœa, and are guilty of self-abuse." The plaintiff declared most positively that such was not the case. Kahn then said, "My fee is £1 1s.," which sum the plaintiff paid. He was then asked how much money he had about him, and was answered one pound, which he also paid. Kahn said his fee for spermatorrhœa was £20. This sum the plaintiff paid, and with other sums he paid altogether £51 1s. He visited Kahn about eighteen times. On one occasion Kahn took a portion of his urine upon the end of a feather, and placed it on the glass of a microscope, and then said, "Oh my God! you are wasting away; your brains are passing into your water; you will certainly die unless you follow my advice; it is very lucky you have come to me." Kahn then told him he must go into a room, and keep himself there at the same temperature for twenty-eight weeks! The plaintiff said that he could not do this, as he would lose his situation if he followed such advice; but then it was answered that if he did not do it he would lose his life. He had medicine from Kahn, but he grew much worse, and at Christmas last he again went to him, when Kahn said that he had the pox, which plaintiff declared was not the case. The plaintiff was now subject to a very disgraceful cross-examination, involving questions as to his first wife's death, the period which elapsed between her death and his contracting gonorrhœa, etc.: he was also asked the name of his employers, which he offered to state in writing to the Judge, who considered such a course to be perfectly sufficient for the ends of justice; but, on being pressed on the point by the counsel, he openly stated the name, and was complimented by the Judge for so doing. Mr. Acton proved that he saw the plaintiff in the spring of the present year; that he was then in a very low and nervous state, but had no symptoms of spermatorrhœa, and in three weeks he completely recovered.—Mr. Acton stated that it was impossible the spermatorrhœa could be discovered in the urine by the means adopted by the defendant.—Dr. Semple deposed that, in his opinion, supposing the plaintiff's evidence to be true, he had not suffered from spermatorrhœa at all, from first to last; he (Dr. S.) considered that true spermatorrhœa was a rare disease, but that many trifling cases of gleet were confounded with it. Supposing, even, that the plaintiff had spermatorrhœa, he thought that the advice to lock himself into one room for twenty-eight weeks was most injudicious; and he also thought that the moral treatment of such cases consisted in trying to raise the patient's spirits, rather than to depress them by aggravating the horrors of the disease.

The Judge: I have no doubt whatever upon this case, and I think that the plaintiff is entitled to the whole of the sum claimed. I think that he is entitled to great credit for the

moral courage he has displayed in bringing forward this case. As to the fact that Kahn himself was not present at all the interviews, there can be no doubt that the other person was acting in his behalf, and under his directions, and the division of the responsibility was evidently devised for the purpose of defeating the ends of justice. The whole of the expenses will be allowed.

It was stated that the agent of Kahn would have been in Court, but that he had left London some months since; but it was proved that he had been in Court the whole time.

PARLIAMENTARY INTELLIGENCE.

HOUSE OF COMMONS.

LUNATICS (SCOTLAND) BILL.

The Bill, as amended, was considered, and was ordered to be read a third time on Monday.

GENERAL BOARD OF HEALTH.

On the vote of £7125, to complete the sum of £11,155 for the General Board of Health, being proposed,

Mr. Williams objected to it, as that board was about to be abolished.

Sir G. Grey said the board was a very useful one, and had done great public good. Their powers would expire next year, and they would be transferred to the President of the Council. It was necessary he should have some assistance, and a portion of the staff would be placed at his disposal. It was for these salaries that the vote was asked.

After a few words from Sir J. Trelawny, Colonel Sykes, Sir H. Willoughby, Mr Wilson, Mr. Williams, and Mr. Ayrton,

Mr. Cowper said the Bill was a concession to the opinions of that House to do away with an expensive board, and the very steps they took to meet the views of Parliament were objected to by hon. members. The right hou. gentleman entered at length into the operations of that board to show that its utility had saved the country more money than it had cost it, and had conferred the greatest benefit on the country towns.

Mr. Mowbray wanted to know from the right hon. gentleman whether it was true that the inspectors of the Board of Health were in the habit of superseding the local engineers.

Mr. Monsell denied that any authority was given to inspectors to act as engineers.

Mr. Henley wanted to know if sanitary improvements could not be carried out without the very expensive machinery of the Board of Health, which had worked very unsatisfactorily. They had been told that in nineteen towns there had been a reduction of mortality, but he omitted to state anything about those towns in which the operations of the Board of Health had completely failed.

Mr. Bass said he had been instructed by the Mayor and Corporation of Derby to support the Bill of the right hon. gentleman, considering that it contained some most valuable provisions.

Sir G. Pechell said if they were to have an alteration in the Act, he thought that the ratepayers of the country ought to have an opportunity of stating whether they approved of it or not. For his part, he should be happy to vote for any motion which should have the effect of doing away with the Board of Health, the Poor-law Board, and the Board of Trade.

The Chancellor of the Exchequer defended the vote.

After a few remarks from Lord J. Manners, the committee divided—for the vote, 141; against it, 30; majority, 111.

METROPOLITAN DRAINAGE.

Mr. Ridley asked the First Commissioner of Works whether he could inform the House if there was any probability of steps being taken for carrying out the provisions of the Metropolis Act, by which it was determined that the river Thames should be freed from the sewage of the metropolis. The hon. gentleman said he understood that the health of several officers of the House, and of persons required to attend their proceedings, had been affected by the noxious effluvium arising from the river Thames.

Mr. Butler asked the First Commissioner of Works when the question of the main drainage of the metropolis was referred to the professional gentlemen appointed by him to consider the subject; whether the referees were likely to make their report before the close of the present session; and what course the First Commissioner proposed to take after he received such report, so that no delay might occur in the commencement of the works.

Sir B. Hall replied that by the Metropolitan Act of 1855 it was provided that large intercepting sewers should be made for the purpose of diverting the sewage from the Thames. It was also provided that those works should be carried out by the Metropolitan Board of Works, but that before any works were commenced, the plans should be submitted to the First Commissioner of Works for his approval. He was anxious to show that so far as the Government were concerned not a day had been lost in dealing with this important subject. Plans were sent to him by the Metropolitan Board of Works on the 22nd of December, and on the 29th of December he referred them to the engineers, and was happy to state that he had to-day seen one of the referees, who informed him that their report would be delivered before the end of this week. No delay had taken place in his department. He would forward the report of the referees to the Metropolitan Board of Works without any delay, and no doubt they would give that report their immediate consideration.

MEDICAL NEWS.

Royal College of Surgeons.—The following gentlemen, having undergone the necessary examinations for the diploma, were admitted members of the College at the meeting of the Court of Examiners on the 24th instant:—

Albert, George Pascal, Sevenoaks.
Barker, Samuel, Ramsgate.
Carey, Francis Edward, Guernsey.
Duchesne, Robert, London.
Graves, Frederick George, Southam, Warwickshire.
Harley, Thomas, Cleobury Mortimer.
Harries, John Davies, Shrewsbury.
Herdson, Robert, The Grange, Edinburgh.
Thomas Richard, Seacombe.

Also, on the 27th instant:—

Clarkson, Frederick, Whitby.
Fahie, James, Cork.
Field, Poole, Thame, Oxfordshire.
Haynes, James Carmichael, Mallow, county of Cork.
Larmuth, John Hamilton, Sale Moore, Cheshire.
Macvey, John, Maralin, Lurgan, Ireland.
Ross, William H., Cape Town, Cape of Good Hope.
Siccama, Rinso R., Doughty-st., Mecklenburgh-square.
Stevenson, James, Plymouth.

Apothecaries' Hall.—Names of gentlemen who passed their examination in the Science and Practice of Medicine, and received Certificates to Practise, on July 23, 1857:—

Comely, George, Winchester.
Davie, John Chapman, Keale, near Reading.
Lys, Francis Daniell, Lymington, Hants.
Macaulay, Thomas, Jun., Leicester.
Perkins, Thomas, Snaith, Yorkshire.
Valentine, Edmund William, Somerton, Somerset.
Winstanley, Robert, Wigan, Lancashire.

East India Company's Medical Service.—List of the successful candidates at the last examination (July) for appointments in the Honourable East India Company's Medical Service. The names are arranged in order of merit.

William S. Playfair, M.D. Ed., M.R.C.S. Ed.
Hugh Clark, M.D. Ed., M.R.C.S. Ed.
George Sutherland, L.R.C.S. Ed.
William R. Grylls, M.D. St. And., M.R.C.S.E.
William E. Caird, M.R.C.S.E.
Richard Banbury, M.R.C.S.E.
James Bremner, M.D. Aberdeen, M.R.C.S. Ed.
Emmanuel Bonaira, M.D. Malta, M.R.C.S.E.
Albert A. Mott, M.R.C.S.E.
Adam Taylor, M.R.C.S.E.
James T. J. Doyle, M.R.C.S. Ir.
Lindsay F. Dickson, M.D. St. And., M.R.C.S.E.
Denis B. Daly, M.D. St. And., M.R.C.S. I. and E.
Andrew N. E. Riddell, M.R.C.S.E.
Alfred Marshall, M.R.C.S.E.

DEATHS.

LEACHMAN.—On the 8th of June, at New York, on board the Victoria, Frederick Leachman, M.R.C.S. Eng. 1856, fourth son of Joseph Leachman, Esq., late of 13, Compton-terrace, Islington, aged 25.

PICKESS.—On the 14th inst., at 13, Caledonian-place, King's-cross, George Pickess, L.S.A., 1845, aged 34, deeply regretted by a large circle of friends, (including many of the Medical profession,) who had the most exalted opinion of his literary and professional attainments.

APPOINTMENTS.

Mr. WILLIAM SOWERBY WALLEN was elected Medical Officer to the East District of the Parish of Rotherhithe, London, on July 16, 1857.

TABLET IN MEMORY OF THE LATE SURGEON BRABAZON.—Surgeon Brabazon, in his capacity of Surgeon of the County Down Infirmary, was beloved for the kindness of his disposition, and his humane treatment of the patients; while a large circle mourned for him as an eminent practitioner called off in the flower of his life. He was a warm advocate of Masonry, and a willing supporter of the cause. He had attained the distinctive and eminent degree of Prince Mason, and was an office-bearer of the Provincial Grand Lodge of South Down. His brethren have erected, within the last few days, a beautiful, though neat and appropriate, tablet to his memory, in the wall to the right of the nave of Down Cathedral. The tablet is of monumental brass:—The following inscription is in church text, with red capitals and black small letters:—"In memory of Phillip Emanuel Brabazon, P.G.R.C., who died August 26, 1856. Erected by several of his brethren of the County Down Masonic Lodge, No. 86." Underneath the inscription is his coat of arms, and the insignia of the order to which he belonged, and his crest surmounts it. The inscription is surrounded by finely executed engravings of masonic emblems.

ROYAL MEDICAL AND CHIRURGICAL SOCIETY.—The Library will be closed from Monday the 17th of August, until Saturday the 12th of September, both inclusive. Books taken out by Fellows of the Society, previous to the 17th August, will be allowed to remain in their possession during the time the Library is closed.

ROYAL DISPENSARY FOR DISEASES OF THE EAR, DEAN-STREET, SOHO.—Last Sunday a sermon in aid of the funds of this institution was preached by the Rev. Dr. Croly. The text taken for the occasion was from the 24th chapter of St. Luke, which forcibly illustrates the benevolent disposition of Our Lord in the healing and curing of disease. A liberal collection was made for the funds of this charity at the conclusion of the sermon.

NETLEY MILITARY HOSPITAL.—The Government have purchased 75 acres more land contiguous to Netley Military Hospital for £10,000. The former purchase consisted of 109 acres, which cost £15,000. The whole of this land was bought of Thomas Chamberlayne, Esq., of Weston-grove, and formed part of the large estates owned by the late Wm. Chamberlayne, Esq., the well-known Foxite member of parliament. The value of the 75 acres was assessed by a jury before two Hampshire magistrates, and J. Coleridge, Esq., assessor; Sir Frederic Thesiger and Mr. Welsby advocating the interests of the crown, and Messrs. Mellor and Karslake those of Mr. Chamberlayne. Surveyors employed by the latter fixed the price of the 75 acres at about £15,000, the government surveyors estimated its worth at £4,500.

WATER LENSES.—In Paris, two ingenious Frenchmen have made a successful attempt to improve water-lenses. They have overcome the difficulties which have hitherto caused failure, and produce lenses, as we are told, which "have the purity and perfection, nearly, without the cost of lenses of solid glass." This success is likely to prove beneficial in more ways than one; for a water-lens properly illuminated will send its light to a distance of ten or twelve miles—the very thing, as it would seem, for railway signals, and for ships navigating the Channel.—*Chambers's Journal.*

AMERICAN CRITICISM OF AMERICAN REVIEWING.—Dr. Gross, in an address to the American Medical Association, says—"The American reviews are, with few exceptions, written without taste and without point, as if their authors were afraid lest they should be accused of unkindness, harshness, or ill-nature. They are characterised more by politeness than by a manly and independent tone, which is not afraid to utter its real sentiments and to affix the seal of its unbiassed judgment. They are marked by none of the masculine vigour which is so well calculated to impart zest to the reader, and cause him to regret that he is so near the end of his task; which infuses life and spirit into a journal, and makes it a welcome guest at the table of the Physician; which fashions and directs the dart, but blunts its point before it is permitted to strike its victim; which metes out equal justice to all men who come within its vitalising, soul-stirring influence; which blends mercy with severity; which, when occasion requires, wounds but does not kill. It is a criticism which is neither alkaline nor acid, nor yet wholly neutral, but so nearly neutral as to render it impossible to determine its real character. It is a jesting, good-natured criticism which for fear of doing mischief, or of being thought unkind, is bound in swaddling-clothes, lest, by its sudden and inadvertent jerks, it should kick over the milk and water in the inkstand of the happy, self-complacent reviewer. In fine, it is an inert, a tame, a spiritless criticism; a criticism without body, without strength, without soul, deaf and dumb, and blind and halt."

VITAL STATISTICS OF LONDON.

Week ending Saturday, July 25, 1857.

BIRTHS.

Births of Boys, 779; Girls, 852; Total, 1631.
Average of 10 corresponding weeks, 1847-56, 1430.

DEATHS.

	Males.	Females.	Total.
Deaths during the week	645	564	1209
Average of the ten years 1847-56	...	...	1102
Average corrected to increased population	...	...	1212
Corrected average for corresponding week in ten years 1847-56	..	..	..
Deaths of people above 90	...	...	5
Deaths in 13 General Hospitals	16	23	39

DEATHS REGISTERED DURING THE WEEK.

CAUSES OF DEATH.	In the Week ending Saturday, July 25, 1857. Deaths of Persons. AT ALL AGES.	Under 20 Years of Age.	At 20 and under 40 Years of Age.	At 40 and under 60 Years of Age.	At 60 and under 80 Years of Age.	At 80 Years of Age and Upwards.	Averages of Temperature and Deaths in 10 Weeks.
Mean Temperature	Mean temp. 68°3						62°2
ALL CAUSES	1209	711	142	148	161	42	1102·4
SPECIFIED CAUSES	1203	711	141	148	161	42	1097·7
DISEASES:—							
1. Zymotic Class	456	393	21	15	19	8	295·3
2. Dropsy, Cancer, and others of uncertain seat	47	8	4	20	15	..	40·7
3. Tubercular Class	196	79	62	36	18	1	189·7
4 Of Brain, Nerves, etc. ..	116	54	11	23	25	3	113·3
5. Of Heart, etc.	33	1	7	9	14	2	31·6
6. Of Respiratory Organs ..	80	33	15	11	16	5	85·5
7. Of Digestive Organs ..	66	32	5	16	11	2	67·5
8. Of Kidneys, etc.	13	1	2	4	5	1	12·4
9. Of Uterus; viz. — Puerperal Disease, etc. ..	11	1	7	2	1	..	9·1
10. Of Joints, Bones; viz.— Rheumatism, etc. ..	5	2	..	1	2	..	6·5
11. Of Skin, etc.	4	1	..	2	1	..	1·9
12. Malformations	2	2	..	..	..	..	4·1
13. Debility from Premature Birth, etc.	36	36	..	..	..	..	27·7
14. Atrophy	55	40	1	5	9	..	37·9
15. Age	40	..	..	..	21	19	34·1
16. Sudden	5	3	1	1	..	..	5·6
17. Violence, Privation, etc. ..	38	25	5	3	4	1	34·8
CAUSES NOT SPECIFIED	6	..	1	..	..	.	4·7

DEATHS IN SUB-DISTRICTS FROM EPIDEMICS.

	Population. 1851.	Small-pox.	Measles.	Scarlatina	Hooping-Cough.	Diarrhœa.	Typhus.
West	376,427	..	1	4	4	65	6
North....	490,396	..	14	5	5	57	11
Central ..	393,256	..	4	..	5	36	5
East	485,522	..	18	4	13	60	10
South	616,635	..	3	..	10	41	11
Total..	2,362,236	..	40	13	37	259	44

METEOROLOGY.

From Observations at the Greenwich Observatory.

Mean height of barometer	29·828 in.
Mean temperature	68·3
Highest point of thermometer	110·
Lowest point of thermometer	51·7
Mean dew-point temperature	57·1
General direction of wind	S.W.
Whole amount of rain in the week	0·03
Amount of horizontal movement of air in the week ...	1155 miles

TO CORRESPONDENTS.

Meteor.—A new magnetic survey of the British Islands is being made, to discover what changes have taken place in the phenomena of terrestrial magnetism since the former survey by General Sabine in 1827.

A Reader.—The visitors last year to the British Museum numbered 361,714; in 1854 the number was 459,262. Visits to the reading-room were less numerous than in former years.

Dr. Farnell.—A time-ball is to be erected at Devonport, which will be dropped by the same electric flash from Greenwich which drops the time-ball in the Strand

COLD IN DENTISTRY.

TO THE EDITOR OF THE MEDICAL TIMES AND GAZETTE.

SIR,—Is there any apparatus yet invented for applying cold to the teeth, which may be made to supersede the use of chloroform during extraction? If so, its construction, maker, and price.

Is there any truth in the objection, urged by some Dentists, to the use of cold, that the blood being once driven from the minute arteries never returns; and consequently the neighbouring teeth afterwards decay or fall out, because the application of cold is not sufficiently localised to prevent this effect upon them? I am, &c. A DENTIST, M.R.C.S.

Mr. Newman.—Dr. Ramsbotham's Obstetric Medicine.

Mr. M.—The Ventilating Surgical Gusset for trowsers, drawers, and under-waistcoats, manufactured by Messrs. Nevill, is a comfortable and useful improvement on the ordinary method of making up those garments.

A Tyro.—Double flowers are produced by the conversion of the stamens and pistils into petals, in consequence of high cultivation.

Mr. Marston.—We should be inclined to think that fifteen grains of calomel was a very large dose under the circumstances; but very much must depend upon the peculiar features presented by the case.

A General Practitioner.—The Medical gentlemen who testify to a case of Lunacy must see the patient at separate times, and it is essential to the validity of the certificate that the Medical men should not be in partnership.

ADMINISTRATION OF ARSENIC AS A POISON.

TO THE EDITOR OF THE MEDICAL TIMES AND GAZETTE.

SIR,—I read with attention your remarks on the trial of Madeline Smith, in which you express your doubts whether so much arsenic as was found in the stomach of the deceased could have been administered in coffee or chocolate. Would it have been possible to administer it in bread and butter? In one of her late letters Miss Smith spoke of L'Angelier looking hungry, and said she would provide a loaf when he came again. Their meetings, if not altogether in the dark, were, it may be supposed, in a very subdued light; and it is just possible the taste might have been disguised in marmalade, or some other article; and eaten in haste, both the Prussian blue colouring and the arsenic might have escaped detection.

The alleged use of the arsenic as a cosmetic will seem to be very improbable to all who will attempt to discharge the colouring matter from it, whether it be soot or Prussian blue; but it might have been well rinsed in water previously to its introduction between two slices of bread.

I am, &c, INQUIRER.

N. Y. Z.—The information required will be found in Carpenter's Human Physiology, and in Sharpey and Quain's Anatomy.

Mr. Richard Henry W.—We cannot recommend the practice of grinding, as it is usually understood, for it is generally only the last resource of the idle and the careless; but it is desirable that the lecturers at the different schools would more frequently subject their pupils to careful examination.

Dr. S.—The publication of the case in question could answer no good purpose, more especially as it conveys indirectly a species of censure upon the conduct of another Practitioner.

Semper Fidelis.—The custom of buying a practice, although perhaps not altogether defensible on Professional grounds, is found to be a useful method of establishing a connexion, but it must be recollected that although you buy the practice, you cannot buy the patients. Be particular in ascertaining the thorough respectability of the parties, and you will not run any great risk.

FRACTURE OF THE HUMERUS BY MUSCULAR ACTION.

TO THE EDITOR OF THE MEDICAL TIMES AND GAZETTE

SIR,—In my paper on Fracture of the Humerus from Muscular Action, published in your last, I referred to the paucity of information on this point in the writings of English Surgeons. Since the appearance of the paper Mr. Lousdale has directed my attention to his work on Fractures, and on looking into it I find that he has mentioned two instances of fracture of the humerus from muscular action, the accident in each case having happened in a precisely similar manner as it occurred to the gentleman who had his arm broken while attempting to force down the forearm of another. M. Malgaigne, in his Traité des Fractures, has also quoted the cases related by Mr. Lousdale. I think it due to this latter gentleman to notice these facts, and therefore shall feel obliged if you will insert this in your next Number. I am, etc.

Caroline-street, Bedford-square. HENRY SMITH.

Mr. Dale's Cases of Puerperal Convulsions are at the printer's.

A General Practitioner.—The best way of using chloroform locally is by frictions with the gelatinized chloroform, made by mixing together equal parts of chloroform and white of egg, and leaving the mixture for three hours.

Betty Martin sends the following "Reasons for Adopting the Rational System of Medicine, by F. R. Horner, M.D."

"Poor Dr. Horner
Sat in his corner,
Eating his *humble* pie;
He put in his thumb;—
There was never a plumb;
So he tried Ho-mœ-opa-thy!

TCHORUS

By himself:—Singing, What a good boy am I!

TCHORUS

By deluded patients:—Though he found it was all my eye!"

COMMUNICATIONS have been received from—

Dr. CONOLLY; Dr. WALSHE; Mr. WHARTON JONES; Dr. PARKES; Mr. BRODHURST; Mr. BARWELL; Mr. ACTON; Dr. FRANK, Umblata, Natal; Dr. M'WILLIAM; Dr. DUIGAN, R.N.; Dr. WEST, Alford; Dr. VILLETTE DE TERZE; M. RENE LANGELIER, St. Heliers, Jersey; Mr. SQUARE; Dr. CURREY; Mr. NICOLL; Mr. HALL; Dr. M'CORMACK; Mr. SNOWE; Mr. WALLER; Mr. BOSWELL; BETTY MARTIN; PRO BONO PUBLICO; Mr. HOUSTON; Dr. SLOP; Mr. NEWMAN; Mr. J. ALLEN; Mr. J. DUNN; Mr. J. BRICKWELL; Mr. CLIFTON; Dr. MARKHAM; Dr. LANKESTER; Dr. LEARED; Mr. DALE; Mr. H. SMITH.

APPOINTMENTS FOR THE WEEK.

1. *Saturday (this day).*

Operations at St. Bartholomew's, 1½ p.m.; St. Thomas's, 1 p.m. Westminster, 1 p.m.; King's, 2 p.m.; Charing Cross, 1 p.m.

3. *Monday.*

Operations at the Royal Free Hospital, 1 p.m.; Metropolitan Free Hospital, 2 p.m.; Orthopædic Hospital, 3 p.m.

EPIDEMIOLOGICAL SOCIETY, 8 p.m.

4. *Tuesday.*

Operations at Guy's, 1 p.m.

5. *Wednesday.*

Operations at University College Hospital, 2 p.m.; St. Mary's, 1 p.m.; Orthopædic Hospital, 3 p.m.

6. *Thursday.*

Operations at St. George's, 1 p.m.; Middlesex, 12½ p.m.; Central London Ophthalmic, 1 p.m.; London, 1½ p.m.

7. *Friday.*

Operations at the Moorfields Ophthalmic, 10 a.m; Westminster Ophthalmic, 1½ p.m.

EXPECTED OPERATIONS.

Notices of EXPECTED OPERATIONS should be sent to the Office on Wednesday, if possible; or not later than 2 o'clock on Thursday, to the Printing Office, Paternoster-row. The House-Surgeons of King's College, the Westminster, St. Bartholomew's, and St. Thomas's, send their notices regularly; those from the other Hospitals are not received as yet with any regularity.

ORIGINAL LECTURES.

A COURSE OF LECTURES ON ORTHOPÆDIC SURGERY,

DELIVERED AT THE

Grosvenor-Place School of Anatomy and Medicine.

(ADJOINING ST. GEORGE'S HOSPITAL,)

By WILLIAM ADAMS, F.R.C.S.

Assistant-Surgeon to the Royal Orthopædic Hospital; Lecturer on Surgery at the Grosvenor-Place School; late Demonstrator of Morbid Anatomy, etc., at St. Thomas's Hospital, etc.

LECTURE XI.

(Continued from page 109.)

MECHANICAL AND PHYSIOLOGICAL TREATMENT OF TALIPES VARUS.

Details of treatment in a severe adult case—Duration of treatment in cases of varus—After treatment, mechanical and physiological.

Now, gentlemen, I exhibit to you a series of casts taken before, during, and after treatment, from the first case in which I applied this instrument. The patient, Mr. B., is in business as a carrier in the Borough; he is a tall, moderately stout, and very muscular man. The deformity, talipes varus, was of extreme severity, and the foot so rigid that no effect

FIG. 50.

Congenital talipes varus in a man aged 26; anterior aspect.

could be produced upon it by manipulation. I have previously exhibited to you the casts from this case, on account of its severity, to illustrate the external characters of the severest form of adult varus; and a case better adapted to test the merits of any instrument, as well as the patience of the Surgeon, could not be selected.

FIG. 51.

Posterior aspect of the same foot as Fig. 50.

Looking at these casts, I think you will agree with me, that a most satisfactory result was obtained in less time than might have been expected in a case of such severity at the age of 26 years. The details of the treatment of this case are as follows.

May 29, 1854.—The first operation was performed. I divided the tendons of the tibialis anticus, extensor pollicis, tibialis posticus, and flexor longus digitorum muscles; and also the plantar fascia.

June 1.—Applied the apparatus, fig. 49.

The eversion of the foot, and uplifting of its outer margin, proceeded very favourably till about half of this part of the deformity had been overcome.

Oct. 6.—Very little progress had been made for some weeks, and the structures in the sole of the foot (evidently the flexor tendons, as well as the plantar fascia) had become extremely tense. The tendon of the peroneus longus was also very tense and prominent, and pain was felt along this tendon when the everting force was increased. I therefore re-divided the plantar fascia, and with it some of the flexor tendons, by a free and deep division. I also divided the tendon of the peroneus longus, having previously determined, by an examination of the dissected foot (figs. 36, 37, and 38), that this tendon, or rather the muscle, to speak correctly, must be shorter than natural in a case of such severity. No inflammation or inconvenience followed the operation in the sole of the foot. The apparatus was never discontinued, and very rapid improvement followed this operation.

Nov. 14.—The inversion of the anterior part of the foot, and also the rotation of the cuboid and outer metatarsal bones—or, as it is called, the unfolding of the transverse arch of the foot—have been completely overcome. When the apparatus is removed there is no disposition to inversion. The first stage of the treatment is now finished, and complete equinus produced. Cast fig. 52 was taken.

FIG. 52.

The same foot as Fig. 50 and 51 after six months' treatment, when the inversion had been overcome. Anterior aspect.

FIG. 53.

Lateral aspect of the same cast as Fig. 52, exhibiting the complete equinus form.

So far as I know, this is the first case in which "the unfolding of the transverse arch of the foot" has been overcome in the first stage of the mechanical treatment, *i. e.* simultaneously with the eversion of the foot.

Nov. 17.—I divided the tendo-Achillis. Continued the same apparatus, but with a flat sole-plate, so that its action was similar to that of the Searpa's shoe.

April 4, 1855.—The foot is now flexed at a right angle with the leg, and has been in this position two or three weeks without making further advance. The ankle-joint is very stiff. Ordered active and passive exercises to be commenced; a common boot, without any steel support, to be worn in the day time; and the instrument to be continued only at night as a retentive apparatus. After a time, the ordinary Searpa's shoe was worn at night, as being less cumbersome.

The exercises and walking did not appear to produce much improvement, and the motion at the ankle-joint continued very limited. This evidently depended chiefly upon the ligamentous rigidity at the ankle-joint, but partly also upon the tendo-Achillis not being long enough to allow of more

than a right-angled flexion. The flexion of the foot had proceeded very slowly after division of the tendo-Achillis, on account of the extreme ligamentous rigidity, and consequently the full length of the tendon required could not be obtained.

May 4.—I re-divided the tendo-Achillis, with the view of increasing the flexion at the ankle-joint, to improve the walking, and guard against return of the deformity, which is often induced by a limited amount of motion at the ankle-joint. I divided above the previous operation, because the tendon in this situation was prominent, and appeared to be free from adhesions. I generally divide below, that old adhesions may not interfere with the descent of the heel and rapid formation of new tendon. The divided extremities of the tendon could not be made to separate by the application of moderate force more than an eighth of an inch, in consequence of the ligamentous rigidity of the ankle-joint.

24th.—Very much improved by continued mechanical treatment. Foot now flexed well beyond a right angle, as shewn in fig. 54. Passive motion, and walking exercise to be resumed.

Fig. 54.

The same foot, showing the complete removal of the deformity six months after the casts Figs. 52 and 53 were taken, and one year from the commencement of treatment.

August 30.—Foot improved. Mr. B. can now walk a mile easily.

I may here observe, that during the whole of the above treatment Mr. B. was not absent from business a single day. He walked about on crutches. The operations were performed in the afternoon, and on each occasion he went to his counting-house on the following day.

December 18, 1856.—I have examined Mr. B. this day, more than a year and a-half since the termination of treatment and complete removal of the deformity. There is not the least disposition to inversion of the foot. He wears as neat a boot on the previously deformed foot as on the sound foot; and, as far as external appearance goes, all is perfect, and no one would imagine that he had been the subject of any deformity. Anatomically examined, the foot is very nearly if not quite as perfect in form as it was a year and a-half ago; perhaps the arch is a little increased, and the instep somewhat higher, but not enough to attract the patient's attention.

The only drawback to the complete cure of the case is the stiffness and very limited amount of motion at the ankle-joint. He can voluntarily flex and extend the foot a little, and therefore motion exists at the ankle-joint. Some improvement in this respect has taken place, but not to a sufficient extent for walking purposes; practically, therefore, he has a stiff ankle-joint, which produces lameness in walking, particularly when he walks fast and takes long steps; but if he takes short steps it is scarcely noticeable. He does not use a stick, and tells me that he can walk any reasonable distance; that long standing does not fatigue him; and that his foot is thoroughly strong and useful; but in damp and changeable weather he has something like rheumatic pain across the ankle-joint after much exercise. The complete removal of the varus, and all disposition to inversion in walking, was most satisfactory in this case. How much would such a result have been valued by our noble poet, Lord Byron? With regard to the stiffness of the ankle-joint, I am decidedly of opinion that much of this might have been overcome by a long-continued course of special exercises and champooing continued for two or three years; but the expense of such treatment, and the business occupation of Mr. B., were obstacles to their being systematically followed out. The exercise of the foot, conducted by the patient himself, has already produced increased muscular development, as proved by the fact, that the circumference of the leg at the most prominent portion of the calf, which is still much smaller and higher than natural, has increased three-quarters of an inch.

I have mentioned all the details connected with this case, with the view of assisting you in the prognosis and treatment of any similar case you may undertake; and, among the advantages gained, it must not be forgotten that this patient is now free from the risk of inconvenience and dangers arising from ulcerations from pressure on the deformed foot, to which club-footed adults are especially liable, and that it was in consequence of his foot becoming more tender to pressure and less useful in walking, that he was induced to apply for relief.

DURATION OF TREATMENT IN CASES OF VARUS.

With respect to the time which the removal of the deformity may be likely to occupy in cases of congenital varus, it is difficult to give any precise directions; but, speaking generally, it will have reference to the age of the patient and the amount of ligamentous rigidity which the case may present. In severe infantile cases the deformity may generally be removed in from two to three months. In children from 5 to 10 years of age, the time will vary from three to six or eight months, according to the ligamentous rigidity which the feet may present. In adult cases the variations as to time required will be less, because, after the completion of growth, the adaptation of the bones and ligaments to the deformed position of the foot, in cases originally slight, is such as to approximate these cases to the more severe forms at the period of birth. The very severe case, the treatment of which I have above described, in a strong muscular man, aged 26, was completely cured, as to the deformity, in a year; and I think very few cases will be found requiring a longer period, if the instrument which I have recommended to you be employed. I consider this apparatus calculated very materially to shorten the duration of treatment in the adult cases. In these cases, however, very much will depend upon the amount of attention which the Surgeon himself gives to all the details of treatment.

AFTER TREATMENT.

By this I mean the treatment necessary in infantile as well as in adult cases, after the complete removal of the deformity, to retain the foot in its natural position, and to improve its physiological condition, with respect to the joints, muscular action, etc., so as to prevent relapse, and render the cure complete and permanent. The after-treatment, therefore, is both *mechanical* and *physiological;* the first consisting in the employment of some mechanical support to retain the foot in its normal position—a retentive apparatus; and the second in the use of active and passive exercises, champooing, and in some instances galvanism. I have already spoken of the very erroneous doctrine inculcated by Professor Syme, that cases of club-foot are curable by the division of tendons alone, without the adjunct of mechanical treatment; but this is scarcely a greater error than to suppose a case of club-foot to be *cured* as soon as the deformity has been removed. I cannot too strongly impress upon you the necessity of paying great attention to the after-treatment in cases of club-foot. In some slight infantile cases, where the muscles are strong, and the ligaments had not become adapted in their growth to the deformed position of the foot, no retentive apparatus may be required to retain the foot in its new position; but in all the more severe cases the deformity will certainly return, unless the foot be retained in its normal position by mechanical means for a sufficient length of time, and appropriate measures adopted to promote its physiological improvement. Generally we find it necessary to employ a retentive apparatus, which consists simply of a light steel support attached to the boot below, and passing upwards to the calf of the leg on the inside, and connected above with a narrow semi-circular steel plate, fastened round the leg by a strap. A strap also passes from the outer side of the boot across the ankle-joint, and is fastened round the steel bar; this supports the ankle-joint, and draws the tibia inwards, or rather keeps the side-iron parallel with the tibia, so that the former may exert a controlling power over the foot. A stop-joint, which will not allow the foot to drop beyond a right angle, is generally placed opposite the ankle-joint; but I always prefer free motion at the ankle-joint, unless paralysis of the anterior

muscles exists, as in many non-congenital cases. If the deformity has been completely removed, and the ligamentous resistance overcome, it will only be necessary for the infant or child, as it may be, to wear this apparatus in the daytime for about six months, or perhaps a twelvemonth, whilst the joints are adapting themselves during growth to the normal position of the foot, and the muscles are acquiring a well-balanced action. If any marked tendency to inversion of the foot remains from the defective adaptation of the joint-surfaces and ligaments, and from an unbalanced muscular action, the Scarpa's shoe must be continued to be worn at night, or a simple rectangular tin splint is sometimes substituted; but the Scarpa's shoe is the most effective.

The physiological means consist of active and passive exercises, with rubbing or champooing, cold bathing, etc. In infantile cases I direct passive exercise, *i. e.* "working the foot" in the direction of flexion and extension, to be conducted by the nurse for a quarter or half an hour twice a day; or it may be done for a shorter period many times during the day. In older children this is assisted by the exercise of walking; but the passive exercise must not be neglected, because if any stiffness at the ankle-joint remains, children run about without flexing the ankle-joint, and then relapse of the deformity is certain.

Failure of the means; weakness of knee joints; additional retentive apparatus.—Although the simple retentive apparatus above described may be sufficient in many cases, it is frequently necessary to employ a more complicated, troublesome, and cumbrous apparatus, extending above the hip-joints to the waist. When the child begins to walk, it may or may not use its feet properly, even though the deformity be perfectly cured. The feet may be perfect in form, with free motion at the ankle-joints, and without any tendency to inversion when the child is sitting, but in walking the child still turns the feet inwards. I need not say that this state of things materially mars the appearance of the case; some defect in the treatment, or weakness induced by the operation, or a tendency to relapse, will certainly be suspected by the parents, but an attentive examination will prove that the inversion of the feet depends upon the legs turning inwards from the knee-joints, in consequence of a very lax condition of the ligaments of these joints, previously described among the "complications of varus;" and in some degree also upon an adapted condition of the muscles of the leg and thigh to the deformity of the foot. The latter cause is most conspicuous in children four or five years of age, who have been accustomed to run about upon their deformed feet.

This troublesome tendency to inversion of the foot and leg can only be effectually controlled from the hip-joint. For this purpose the steel-support must be carried to the waist and connected with a pelvic belt. The steel connected with the boot should pass up the inner side of the leg, and then, by means of a semicircular plate below knee, be conducted to the outer side of the knee-joint and thigh. A free joint should be placed opposite the knee, and the knee-joint itself supported by a knee-cap connected with the steel. The use of this apparatus must be continued so long as there is any defect in the balance of muscular action, and if applied when the child first begins to walk, will generally have to be worn from two to four years; because, although the defect may be slight, it would certainly lead to relapse of the deformity if the child were allowed to walk badly, and we cannot induce young children to exert any voluntary control over their movements. In older children this tendency to inversion is quite within the power of voluntary control, and I have never known it necessary to apply this apparatus described in children above six or seven years of age.

In youth and in the adult the after-treatment is very simple. Sometimes no retentive apparatus is necessary, but it is generally advisable to use a steel-support from the boot to the calf of the leg with the ankle-strap, and a free joint at the ankle. Although so little mechanical support is required, greater attention to the physiological treatment is always necessary in consequence of the ligamentous adaptation which has taken place during the period of growth, and the stiffness of the ankle-joint which is apt to remain, and in the adult flexibility of this joint may never be obtained. Active and passive motion must therefore be persevered in with the utmost attention and regularity. If this be neglected, and if at the same time the steel-support, with a stop-joint at the ankle, be worn for any lengthened period as recommended by some authorities, an inflexible condition of the ankle-joint may be induced even in youth, and increased by contraction of the anterior muscles consequent upon the foot being retained in the rectangular position by the mechanical means employed. In December, 1855, I saw a boy, aged 16, who had been cured of congenital talipes varus seven years previously, and had ever since continued to wear the inside steel-supports with stop-joints, under the direction of an Orthopædic Surgeon, who still wished him to continue their use. Both feet were tolerably perfect as to form; no disposition to inversion remained, but, on the contrary, there was rather a tendency to eversion; the heels were well down, and the feet flexed at a right angle with the legs, but they were rigidly held in this position. He had no power of extending either foot beyond a right angle, and the tendons of the anterior and outer muscles of the leg, especially of the extensor communis and peronei, were very tense and prominent, so that structural shortening of these muscles had evidently taken place as the result of long retained position. It seemed probable that this case would terminate in a severe and intractable form of talipes vulgus, but I now mention it to you as an example of excess of mechanical, and neglect of physiological treatment.

(To be continued.)

ORIGINAL COMMUNICATIONS.

CASE OF DEATH FROM AMYLENE.

By JOHN SNOW, M.D.

I REGRET very much that I have to detail the particulars of a second death from amylene. It occurred in St. George's Hospital on Thursday last, July 30, in a case in which Mr. Cæsar Hawkins removed a small epithelial tumour from the back. The patient, a short, muscular man, was a tailor, 24 years of age, who had been in the Hospital several months, and had had three similar tumours removed, by as many operations, under chloroform; the last of these operations having been performed three weeks previously. He inhaled the amylene without any difficulty; in about two minutes he appeared to be unconscious, and, in another minute, the sensibility of the margin of the eyelids was somewhat diminished, and I told Mr. Hawkins that he might perform the operation. For this purpose the patient, who had been lying on his side on the table, was turned a little more on his face, or at least it was attempted to turn him, when he burst out into a kind of hysterical excitement, laughed loudly, and was with difficulty held on the table. Nothing was done during this excitement, which lasted about a minute. After it had subsided, I administered a little more amylene, although the patient had not recovered his consciousness; and then Mr. Hawkins performed the operation, which I believe did not last more than two minutes altogether. During the operation the patient was turned on his face. He rested, I think, chiefly on his knees and elbows. He was muttering in an incoherent manner, and making slight attempts to move, but was easily restrained. I gave him an inspiration or two of amylene now and then during the operation, with the intention of preventing his waking prematurely; for this purpose I turned the head a little to one side, and raised the face a little from the table (a). I had concluded that the patient would not require any more amylene, and was expecting that he would show signs of returning consciousness or sensibility almost as soon as Mr. Hawkins had tied the suture which he was introducing; but, instead of this, the limbs became relaxed, and the breathing, though free enough, took on a noisy, snoring character.

This is a state which is common enough in the use of chloroform, and excites no alarm whatever, but I felt that it ought not to occur in the use of amylene, especially after it was left off. I therefore sought again for the pulse at the wrist, and could perceive it only with difficulty, if at all. I spoke to Mr. Hawkins, and we immediately turned the patient

(a) Less than an ounce of amylene was poured out, and it was not all used.

on his back. His face had already become livid, and his breathing was of a gasping character. Mouth to mouth insufflation of the lungs was performed, and between the insufflations there were spontaneous acts of inspiration, during which the air seemed to enter the lungs freely. In a minute or two the lips became of a proper colour, and the countenance had altogether such a natural aspect that the patient seemed to be recovering. The pulse at the wrist, however, could not be felt. No one listened to the chest at this time, for fear of interrupting the process of artificial respiration. After two or three minutes, Dr. Marshall Hall's method of artificial breathing was substituted for the insufflation, and it was continued very perfectly by the House Surgeons and others for an hour and a half, with the exception of two short intermissions, which will be mentioned. During three quarters of an hour of this time there were spontaneous inspirations, during which air entered the lungs, in addition to that which entered during the turning process. Twenty minutes after the accident, the process of artificial respiration was suspended for about a quarter of a minute, to enable me to listen to the chest. I thought I could hear the heart beating regularly, but very feebly, and certainly there was a good vesicular murmur, and the air seemed to enter the lungs by the patient's own breathing, almost as freely as in health. At the end of three quarters of an hour, with the permission of Mr. Hawkins, I introduced two hare-lip pins which had been connected with the electro-magnetic battery, with the intention of performing galvano-puncture of the heart. The needles were introduced to the depth of about an inch and a half between the cartilages of the ribs, just to the left of the sternum, and on a level with the nipple. They were afterwards found to have penetrated the walls of the left ventricle, near the septum, but without reaching the cavity. There was a quivering contraction of the pectoral muscle when the needles were first applied, but no effect on the heart. The needles ought probably to have been coated with some non-conducting substance almost as far as their points. There were no further efforts of inspiration after this time, but this was probably only a coincidence. The electro-magnetic battery had been applied in the early part of the treatment by means of the wet sponges applied to each side of the chest, but it produced no effect.

An examination of the body was made by Mr. Holmes, the Curator of the Hospital Museum, on the following day. A good deal of dark-coloured fluid blood flowed from the right cavities of the heart, and the left cavities contained but little blood. The heart was pale and somewhat friable; but a microscopic examination by Mr. Holmes did not show any fatty degeneration. The lungs were moderately vascular, and contained some small epithelial tumours of the same character as those removed from the back. There was a large cyst in one kidney, but, with these exceptions, the organs were healthy. The vessels of the brain were not distended, and that organ was altogether less vascular than is usual after sudden death. No smell of amylene was perceived in the body.

The accident in this case, as in that which I related in the *Medical Times and Gazette* of April 18, clearly commenced at the heart. This has also been the fact, I believe, in all the well-recorded instances of death from chloroform. In the *Medical Times and Gazette* of July 25, M. Devergie is related to have expressed an opinion in the Academy of Medicine that the former instance of death from amylene was caused, in great part, under the influence of true asphyxia, using that term in its modern acceptation. Now that is altogether an error, arising, probably, from M. Devergie not having seen any original account of the case. There was no cause of asphyxia, either internal or external; the patient breathed well until after his heart had ceased to beat, unless in the most feeble and doubtful manner. The valve which was closed only altered the direction, but not the amount of air. In fact, the patient was throughout supplied with as much air as could enter through a tube twice the size of his wind-pipe.

I had scarcely any hope of the patient in St. George's Hospital from the very commencement of the accident; for I felt that if he could be recovered by artificial respiration, his own breathing would have remedied the accident, even before it was discovered. From what has been published respecting the pulse sometimes stopping and commencing again, during the inhalation of chloroform, it is probable that many accidents, in which the heart has been nearly paralysed, have happened, and rectified themselves, without attracting much notice. The length of time the patient continued to breathe after the above accident from amylene is very remarkable. I believe the brain was never more than partially under the influence of that agent, and that its fatal action was undoubtedly exerted on the nerves of the heart.

After the former accident which I recorded, I gradually reduced the power of the inhaler by withdrawing some of the bibulous paper, till I had diminished the evaporating surface to less than one-half; and in upwards of ninety cases in which I had administered amylene—from the latter part of April till the above accident—I never had occasion to feel a moment's uneasiness about it. Whilst I have been very successful in avoiding accidents from chloroform, I have been very unsuccessful in avoiding them from amylene. I do not think, however, that we have evidence at present to show which of these agents is least dangerous, in the way in which they are generally used. M. Giraldès, of Paris, who was present at the operating theatre of St. George's Hospital when the above accident happened, has employed amylene in 100 cases in children, and I have been informed by several Medical men newly returned from visits to the Continent, that amylene is very extensively used in the public Hospitals; yet no accident has been recorded from its use abroad, although accidents occurred very soon after the introduction of chloroform. Given on a handkerchief or sponge, I believe that amylene would be even safer than chloroform, owing to the greater cold produced during its evaporation; but I have seldom exhibited it so, as I did not think it would be certain and regular in its action, and any doubt on these points would, with me, have quite counterbalanced its other advantages.

As regards the position of the patient, I have several times given amylene, and chloroform very often indeed, to patients placed on the table with the face downwards, and have seen no ill effects; and I do not see how this position could interfere with the action of the heart.

If I were to set the accident down to some peculiarity or idiosyncrasy in the patient, many Medical men would, I believe, be ready to agree with me; but I am inclined to the opinion that the patient took one or two inspirations of vapour a little stronger than I intended, and was using my best endeavours to regulate. I had determined the principle, that the air which the patient should breathe should not contain more than about fifteen per cent. of vapour of amylene, and I was employing the same kind of means to accomplish this, which I have used for many years, in trying to limit the vapour of chloroform to about five per cent. Although this plan has answered sufficiently well as regards chloroform, I do not conclude that it is so exact as to prove that the patient, whose case I have related, was an exception to the usual rules which govern the action of amylene. I still believe, that if the amylene were exhibited, by measured quantity, in a balloon or bag of known size, a sudden accident would not happen, except by measuring a wrong quantity; but I had every reason to trust that the plan which had succeeded so well with chloroform would succeed also with amylene; and to introduce a troublesome and cumbrous method would hardly be practicable with a new agent, when it is not required for one already in use.

M. Tourdes, of Strasburg, arrived at the conclusion that accidents would not happen from amylene; because one may continue it for an indefinite period on animals, without ill effects, while continuing the application of ether or chloroform causes death. This would be true, if accidents happened by administering these agents too long, and not by their sudden action. In giving sulphuric ether, one gives the vapour seven or eight times as strong as would cause death, if continued for an hour or two; in giving chloroform, one gives the vapour twice as strong as would have the same effect if continued; but in administering the vapour of amylene, to be on the safe side, we must exhibit it of such strength that it would produce no ill effects if continued indefinitely. According to my calculations, the patient requires to absorb about eight minims of sulphuric ether into each pound of his blood, in order to be rendered insensible by that agent; while he requires to absorb only two-thirds of a minim of chloroform, and one-tenth of a minim of amylene, to produce a like effect. This circumstance will help to explain how sudden accidents may happen with the last two agents more readily than with the first.

Sackville-street, August 1, 1857

ON HYPERTROPHY OF THE LEFT VENTRICLE OF THE HEART,

IN RELATION TO DISEASE OF THE AORTA AND ITS BRANCHES.

By W. S. KIRKES, M.D.

Fellow of the Royal College of Physicians; Assistant-Physician to St. Bartholomew's Hospital.

(Continued from page 111.)

It being more probable, then, that hypertrophy of the left ventricle induces rather than results from arterial disease, it might be expected that such arterial disease would be found in nearly every case of hypertrophied left ventricle, on whatever cause the hypertrophy depended. What information do we gain on this point from an analysis of cases of hypertrophied heart? 180 cases in which I found the left ventricle manifestly hypertrophied, were thus analysed. Out of these there were 121 in which the aorta was more or less decidedly diseased, 34 in which it was not examined or not noticed, and only 25 in which it was said to be healthy. Omitting the 34 cases in which the arteries were not particularly examined, we have a residue of 146, in all, except 25, of which, the aorta was diseased. It is evident, then, that arterial disease is a very common attendant upon hypertrophy of the left ventricle.

Yet there were 25 cases in which there was no obvious disease of the aorta. How are these exceptions to be explained, if the view be correct that an hypertrophied left ventricle is the real cause of the arterial disease? An examination of them tends to strengthen rather than to weaken the statement. For, in order that the arterial system should receive the full force of the hypertrophied left ventricle, and suffer in proportion, it is evident that nothing should impede the ejection of the whole mass of blood from the ventricle at each systole. If there be disease of the aortic valves, sufficient to produce obstruction at the orifice, or to allow regurgitation during the diastole, then the aorta and its branches will be relieved from a large part of the ill effects of an hypertrophied ventricle, for much of this extra force will be expended in driving the blood through a narrow aortic aperture in the one case, while in the other, supposing there is no obstruction, which however is rarely the case in regurgitant disease of the aortic valves, the coats of the distended arteries will be, during the diastole, speedily relieved of much of their excessive pressure, by the return of part of the blood through the insufficient sigmoid valves.

If, again, there be, together with or independent of disease of the aortic valves, sufficient disease at the left auriculo-ventricular opening to impede the flow of blood from the auricle to the ventricle, or to allow of regurgitation during the systole, or, as often happens, of both together; here, also, the arteries will be relieved from the excessive force to which an hypertrophied ventricle would, but for some such intervening condition, have subjected them. One might expect then that, in accordance with these views, the arterial system would be found comparatively free from degeneration when comparatively little subjected to the condition supposed likely to lead to it, viz. prolonged excessive pressure on their walls; while, on the other hand, it would exhibit it in the most marked degree in those cases in which the full force of the supposed exciting cause was brought to bear upon it, as, for example, in those striking instances in which, associated with renal disease, there is extreme hypertrophy of the left ventricle, without any attendant valvular affection. Now, the twenty-five apparently exceptional cases, in which the left ventricle was hypertrophied, and the aorta healthy, instead of militating against, help to demonstrate these points most completely; for, with but two exceptions, there were, in all the instances, intelligible reasons why the aorta should not have been diseased. Thus, in fourteen, there was extensive disease of the aortic or mitral valves, or of both, sufficient to impede the free exit of blood from the left ventricle into the arterial system. This was evidenced both by the nature of the valvular disease, and, in many of the cases, by an unusually narrow calibre of the aorta, and a corresponding thinness of its walls. This narrow state of the aorta, with thin healthy walls, I have frequently found in cases in which it was evident that an unusually small amount of blood habitually traversed the canal. It has its converse in the wide channel and thickened, but structurally-healthy, walls of the aorta or other arteries through which an unusually large amount of blood continually passes. In four, the hypertrophied left ventricle was associated with disease of the kidney, which ran a rapid course, killing, with acute dropsy, probably before the arteries had time to manifest, in disease of their walls, the ill-effects of the over-straining to which the hypertrophied ventricle must have subjected them. In two, the pericardium was adherent, and thus the ventricle would be hampered in its action, and prevented from expending its full force on the blood expelled from it. Similar mechanical impediment to the free action of the heart existed in two other cases—the thorax being distorted in one, the lungs extensively compressed by old false membrane in the other. In the remaining case, the hypertrophy of the left ventricle was only slight, and need not be taken into account.

With but two exceptions, therefore, upon which at present it is scarcely worth while to dwell, the twenty-five cases, which at first seemed to be exceptions to the statement that arterial disease is apt to occur in all cases of hypertrophy of the left ventricle, exhibit in the state of the valves or in other conditions, intelligible reasons why such arterial mischief should not have resulted. Moreover, it should be observed that in much more than half of these cases the amount of ventricular hypertrophy was only moderate, and in most of those in which it was great there was either extensive valvular obstruction, or rapidly fatal disease of the kidney, to explain the absence of arterial mischief. The state of the kidneys, too, in these cases requires a word of comment. In seventeen out of the twenty-five these organs were healthy, so that in them the hypertrophy was probably entirely due to mischief in and about the heart itself, and was therefore probably no more than sufficient to overcome the local obstruction, and to propel, with requisite but not excessive force, the natural amount of blood into the aorta. In only eight were the kidneys diseased, and out of these, four were rapidly fatal; so that in only four out of the twenty-five had the arteries to bear for any lengthened period the effect of the additional hypertrophy induced by the renal disease. This is very different from what was observed in the sixty cases in which the arteries were extensively affected. For in at least twenty-eight out of these the kidneys were found diseased, and, no doubt, this renal affection was an important additional cause of the hypertrophy in many, and apparently the only cause in at least twenty-two, in which there was no valvular disease, or other local cause of cardiac obstruction to account for it. So that in these twenty-two the full force of the hypertrophied ventricle would fall on the arteries, and ultimately lead to their disease; while in those cases in which the kidneys and the valves were affected together, the additional hypertrophy induced by the renal disease would probably act injuriously on the arteries, that resulting from the valvular disease being probably only sufficient to overcome the local obstruction, and no more. There were, indeed, only seven out of the fifty-seven in which, with valvular disease, hypertrophied left ventricle, and extensive affection of the arteries, the kidneys were found healthy. It is necessary to scrutinize these seven cases as carefully as the twenty-five cases of valvular disease without affection of the arteries, in order to determine why the arteries were diseased in them, and not in other instances of valvular disease combined with healthy kidneys. For of the latter set it was observed that the amount of hypertrophy undergone by the left ventricle was probably no more than sufficient to compensate for the obstruction offered to the exit of blood from this cavity into the aorta, and not enough to propel an undue amount with undue force; but that if disease of the kidneys be superadded to the valvular disease, the additional hypertrophy thus induced will all fall injuriously upon the aorta; while if the kidneys alone are diseased, the valves being healthy, the whole amount of the consequent hypertrophy will fall upon the arteries.

Now, a careful examination of these seven cases showed, in the first place, that in every instance, with but one doubtful exception, the mitral valve was efficient, so that, there being no regurgitation into the auricle, all the force of the ventricle, which in nearly every instance was greatly hypertrophied, would be expended in the direct course of the blood. If the obstruction at the aortic orifice were great, it would be largely consumed there; if little, most of it would go on to the arteries, and act injuriously upon them; if there were no obstruction at all, then the whole force would probably be expended upon the arteries. In three of the cases there was considerable obstruction, and, combined with this, there was evidently aortic regurgitation. The effect of both these conditions would naturally be to relieve the arteries of a considerable amount of the extra distension to which the hypertrophy of the left ventricle, which was very great, would otherwise have subjected them; and, as might have been anticipated, the amount of aortic disease in these cases was much less considerable than in those cases in which there was no such obstruction. In the remaining four, the aortic obstruction was very slight, so that, with complete efficiency of the mitral valve, the full force of the contracting ventricle would be conveyed into the arteries, and distend them in an unwonted degree. Instead of being exceptional, therefore, these seven cases, like the twenty-five other apparently exceptional cases, are really in complete accordance with the view that the amount of arterial disease is in great measure proportioned to the amount of force with which the hypertrophied left ventricle can act directly upon the coats of the aorta, being greatest when the obstruction at the aortic orifice is least, and vice versâ. Additional confirmation, too, is furnished by the cases of slight aortic disease associated with disease of the valves; for in the great majority the amount of mischief in the arterial coats was very trivial, especially when there was manifest obstruction at the aortic orifice. The canal of the aorta, too, in many such cases was mentioned as being narrow, which is further proof that, although the left ventricle was hypertrophied, no increased, but rather an unusually small amount of blood, was propelled into the arterial system.

We seem, then, to be led to this conclusion, that hypertrophy of the left ventricle is apt to be accompanied by disease of the coats of the aorta, but that this concomitant disease is far more likely to ensue when the valves are healthy than when they are diseased, and this for the reasons just stated. It may be as well to glance for a moment at the way in which the left ventricle, when hypertrophied, especially in renal disease, is calculated to bring about such serious mischief in the arteries. In health, the walls of the aorta are subjected to a tolerably uniform amount of pressure from the ventricular contraction. To this, and to something beyond, they are well adapted. Though subject to fluctuations, yet the amount of pressure seldom varies very much, and rarely becomes excessively great; at the same time the passage of blood through the capillary system is free, and in tolerable proportion to that which enters the arteries at each systole. But in extensive disease of the kidney matters are very different. The circulation through two vascular and important organs is impeded, and the secretion of urine is diminished; both these conditions will tend to increase arterial tension, the former by offering an obstacle to the free transit of the arterial blood, the latter by causing an accumulation of the watery portions of the blood. These, however, although their influence is made much of by Dr. L. Traube in a recent and very clever essay, (a) are probably only temporary evils, for in disease of the kidney the total quantity of blood soon becomes reduced, in part owing to the escape of albumen at the kidneys and the dropsical effusion, and in part to its own imperfect assimilation and nutrition. More serious and more permanent effects remain; the blood impregnated with the constituents of urine flows less freely than natural through all parts of the systemic capillaries; this leads to increased arterial distension, and this again necessitates increased energy in the muscular walls of the left ventricle, for the force with which it formerly contracted will now be insufficient to overcome the resistance in the arterial system, and completely empty its cavity.

This necessity for increased vigour of contraction being persistent, the muscular substance naturally increases in thickness, and at length acquires a more or less advanced degree of hypertrophy, often doubling its original bulk. The blood in the whole arterial system being thus placed, as already said, between two unnaturally great causes of pressure, excessive ventricular impulse and continued obstruction at the capillaries, will necessarily occasion undue arterial distension, and thus predispose to arterial disease. An almost exactly parallel condition is witnessed in the pulmonary artery in cases of emphysema and consequent hypertrophy of the right ventricle. The dilating air-cells in emphysema compress and partially obliterate the pulmonary capillaries; obstruction to the capillary circulation through the lungs, congestion and distension of the pulmonary artery, and hypertrophy of the right ventricle are natural sequences. The blood in the pulmonary artery is accordingly submitted to the combined pressure of an hypertrophied ventricle on the one hand, and an obstructed capillary flow on the other. The result is, that the pulmonary artery and its branches become dilated, thickened in their walls, and ultimately degenerated (b). It is very worthy of note, also, that in these cases of diseased pulmonary artery associated with emphysema and hypertrophied right ventricle, the aorta rarely presents any evidence of disease. This fact, which I have often observed, furnishes one of the strongest arguments against the view, that disease of the coats of arteries is a constitutional matter, and not one due to a local cause; for the coats of the aorta and those of the pulmonary artery are diseased under different conditions, and not coincidently, the disease in each being associated with obstruction to the blood within its own canal. It has been argued that, since arterial disease has been found so commonly in conjunction with renal degeneration, both are probably dependent on the same general cause, but the fact that the one morbid state may occur without the other, together with the fact of the pulmonary artery being diseased while the aorta is healthy, may be considered favourable to the view here advocated, that when renal and arterial disease do concur, the hypertrophied left ventricle and attendant capillary obstruction, which are induced by the kidney disease, constitute the chief cause of the mischief in the arteries.

The systemic arteries, over-distended by the combined influence of the two causes above specified, are at first relieved by dropsical exudation; for in renal, as in genuine cardiac dropsy, the serous effusion is probably in great measure mechanical, depending, in the latter, upon extreme venous congestion induced by obstructed transit of blood through the heart; in the former, upon obstruction seated in the capillaries themselves, at the same time that the blood, poorer in solid constituents, and more watery than natural, is subjected to unusually great pressure from an hypertrophied ventricle. But this relief is not sufficient. The arteries continue subjected to excessive pressure; at first, and for long, they probably bear up against it, the walls thickening by healthy hypertrophy; but ultimately, from failure of nutrition or other cause, they cease to keep pace with the demand upon them, their texture becomes enfeebled and degenerate, and the vessels yield into general or partial dilatations, pouchings, and aneurisms. Much of the fatty and calcareous material present in the coats of these diseased vessels consists, no doubt, of degenerate deposits formerly exuded between the inner and elastic coats, and constituting the well-known atheroma of arteries. This exuded material, at first of an albuminous nature, often assumes the organised form and character of an internal coat; (c) and although its peedily degenerates, yet there is no reason for doubting that it may to a certain extent be regarded as a kind of healthy hypertrophy of the inner coat, analogous to the excessive formation of epidermis on a part subjected to prolonged unusual friction.

In the few exceptional cases in which, with obvious disease of the arteries, no hypertrophy of the left ventricle is found, it should not be concluded that no such hypertrophy had ever existed; for it not unfrequently happens that, either from general emaciation, or from great diminution of the total amount of blood, and therefore of the necessity of great ventricular vigour, or from other causes, a ventricle previously hypertrophied resumes more nearly its ordinary dimensions. This is not unfrequently seen in cases of cancerous, tuber-

(a) Ueber den Zusammenhang von Herz, und Nieren-Krankheiten. Berlin, 1856.

(b) See especially, on this point, Dietrich, Dr. G. Johnson, Dr. Sibson.

(c) Rokitansky. Path. Anat. Bd. ii. p. 534, e. s. Paget, Pathological Catalogue of the Hunterian Museum, vol. iii. p. 221.

cular, and other emaciating diseases, in which after death the heart may be found no bigger, even less, than ordinary; although the presence of valvular obstruction, or advanced renal disease, or adherent pericardium, furnishes satisfactory grounds for concluding that at a former period the left ventricle must have been materially hypertrophied.

It should be observed that the foregoing remarks on the probable cause of arterial disease in general have relation chiefly to the larger vessels, and not to those which, on account of their remoteness from the heart and their minute size, suffer comparatively little from the excessive action of an hypertrophied ventricle. No doubt all the ramifications of the arterial system participate more or less in the mischief thus occasioned, but those are most liable to suffer which receive the first and principal shock of the ventricular impulse, such as the aorta, especially the arch, and its main subdivisions, while the branches far distant, and the minute ramifications within the tissues will be less influenced. In bringing about disease in these latter vessels there are probably many other conditions at work than mere mechanical over-distension of their walls, such as, for example, impaired nutrition of the tissues owing to deficient quantity or deteriorated quality of the blood; and disease or softening and wasting of the tunics in which the vessels are imbedded, for when relieved of the natural pressure to which a healthy state of the parts in which they ramify subject them the vessels will tend to dilate, the blood within them to stagnate, and their coats to suffer in nutrition; and moreover, as well observed by Mr. Paget, "When a part degenerates, its blood-vessels are likely to degenerate in the same manner."(d) To this weakening and degeneration of the coats of the small vessels may probably be ascribed many of the hæmorrhages which take place into organs. The causes and effects of the disease of minute arteries require, however, a more lengthened examination than can be here given.

The foregoing remarks, again, have chiefly reference to the arterial system generally, and do not profess to explain those cases in which individual arteries only are diseased, the rest of the aortic system being healthy. In the case of the arteries of the brain, it is true that with disease of them, disease of the aorta usually coexists, rendering it probable that the affection of both depends on the same cause. But it is not improbable that disease of the arteries of the brain, and disease of the arteries of other organs, may in some cases exist, independent of general arterial affection, and have their explanation in some morbid condition of the organ itself. Thus obstructed circulation through any given organ may, by distending the arterial branches distributed to it, lead to their disease, while other arteries, uninfluenced by such local obstruction, remain healthy. We seem to have illustrations of this in the already quoted dilatation and disease of the pulmonary artery and its branches in emphysema of the lungs and other causes of obstruction to the pulmonary circulation, and in disease of the renal artery, not unfrequently found, and probably very general, in cases of degenerated kidney. Whatever impedes the exit of venous blood from an organ, or whatever interferes with the due activity of its capillary circulation may, in all likelihood, if its influence be prolonged for a great length of time, become a cause of dilatation and disease of the arteries supplying such organ. This question however, like that relating to disease of the minute arterial subdivisions within the tissues, is too extensive for discussion in the present paper, the principal object in which has been to show that disease of the aorta and arterial system generally is not, as has usually been supposed, a primary affection dependent on some general constitutional cause, but, in the majority of cases, is the direct result of prolonged over-distension of the arterial tunis brought about usually by an hypertrophied left ventricle, and especially liable to occur in those cases in which, together with such hypertrophy, there is impeded circulation through the myriads of capillary channels issuing from the general arterial system, as in advanced kidney disease, so that the aorta and its ramifications are subjected to the combined influence of two unnaturally great causes of dissension, one situated at the commencement, the other at the termination of its course.

(d) Lectures on Surgical Pathology, vol. i. p. 138. See also Dr. Todd, Clinical Lectures on the Nervous System, 2nd ed. p. 128, and Dietrich, Beiträge zur Pathol. Anat. der Lungen-Krankheiten, p. 38.

OBSERVATIONS
ON THE
MEDICAL HISTORY OF THE EARLY KINGS OF ENGLAND.
By G. CHAPLIN CHILD, M.D.

We have now nearly reached the middle of the period embraced in this essay, and it might naturally have been expected that, as we advanced, the diseases of royal patients would have been more noticed and better described by historians than in the preceding centuries. This, however, is by no means the case; and, unsatisfactory as the Medical reports have been up to this date, we shall find them still less explicit with regard to the monarchs to whom we now turn our attention. During the 13th, 14th, and 15th centuries, Medical science made little or no progress; nor, indeed, did any science flourish in England except architecture and its accessory, sculpture.

HENRY III.—1216—1272.

In person this king was "well cast and strong," without any peculiarity of appearance except a nearly complete ptosis of one eye.

Historians mention three illnesses of this king, but the details are vague. Florence of Worcester, or rather the monks who continued his history, tell us that, in 1262, Henry went over to France, where he and nearly all his household fell sick. Many of his great officers died, and the rest narrowly escaped death. As he crossed over to France on July 19, and returned in health on the eve of St. Thomas the Apostle, the period is limited to about five months. I am unable to find any details respecting the nature of this illness, but it probably was some kind of fever or epidemic disorder.

Lingard tells us that towards the close of Henry's life repeated maladies had gradually worn out his constitution, and I shall notice one of them as illustrative of the times. Matthew of Westminster narrates that, in 1270, "King Henry celebrated the Feast of the Nativity at Winchester; but in the ensuing Lent he was seized at Westminster with a severe fit of illness, and despairing of recovery he recommended himself to the prayers of the Church. But the monks of Westminster, fearing to lose so good a patron, though it was the rainy season, went in procession barefoot to the new Temple in London, and celebrated a mass there for the king's sake, in honour of the Blessed Virgin Mary; and, as they were returning back again in the same manner, news was brought to them that the king had recovered of his illness; for he had enjoined his friends to desire the monks to chaunt, "They rejoice in Heaven," saying that "he was now convalescent in consequence of the prayers of the monks."

In the spring of the year 1271, "the king had been," writes Lingard, "in the most imminent danger, and had earnestly requested by letter the return of the Prince Edward." He then recovered, but from anxiety and other causes soon relapsed, and his health rapidly declined. Of his last illness M. Paris gives the following account: "And when he had reached the abbey of St. Edmundsbury he was seized with extreme debility (gravi languore correptus), from which he never rallied. During his illness, however, the earls and barons, with the priests, came to his bedside to be present at his death. Having confessed, &c., he expired." Not only is the cause of death uncertain, but there is even some disagreement among historians as to the place. Baker, Holinshed, and others say he died at Westminster. He died at the age of 65.

Baker, in his Chronicle, gives the names of five "excellent Physicians" who flourished in this reign. In Holinshed's list of learned men of this reign I find mentioned John Giles, or, De Sancto Ægidio, "an excellent Physician." He was born at St. Alban's, and studied in Paris, where he became Physician to Philip, king of France. About 1253 Robert Grosthead, Bishop of Lincoln, "lay seriously ill at the manor of Buckden. He therefore called in Master John of St. Giles, a brother of the order of preachers, one who was skilled in the medicinal art, and a learned lecturer on theology, in order that he might obtain from him consolations both of body and mind."—M. Paris. This John Giles must not be confounded with the more famous Ægidius of Corbeil, Physician to Philip Augustus.

In this reign flourished Ricardus Anglicanus, generally considered as the first English Medical writer. He studied

first at Oxford, then at Paris. Also Master Nicholas de Ferneham, who studied at Oxford, of whom M. Paris thus writes: "The said Nicholas had been rector in arts at Paris for several years; he afterwards practised the art of medicine at Bologna, in which he became pre-eminently distinguished, and obtained great favour by his skill." He subsequently turned his attention to "spiritual medicine." He refused the see of Chester, but subsequently accepted that of Durham. Aikin says he was domestic Physician to Henry III. He seems to have been a most estimable man.

Lastly, in this reign flourished Roger Bacon, a Franciscan friar, described by his friends as "an excellent philosopher, mathematician, and astrologer," but denounced by his enemies as a dangerous magician. He paid the customary penalty in those days of being in advance of his time, and passed many years in prison. I introduce his name here for the purpose of stating that this master spirit of the age declared "astrology to be the foundation of medicine."

Owing to the increase of leprosy after the first crusade, leper-houses or hospitals sprang up thickly over Europe. In 1225, temp. Louis VIII., there were 2,000 in France, and they were there termed "leproseries," also "maladreries," or sick houses *par excellence*. In London alone there were six. But they were very numerous all over the country, as any one looking into "Dugdale" will at once perceive. As the old leprosy died out in subsequent centuries, the buildings were appropriated to other purposes. At present few, if any, of these buildings exist, although in some towns, especially on the continent, their site is indicated by the name Leper-street, which still survives.

EDWARD I. 1272—1307.

Holinshed draws the portrait of the king as "tall of stature, somewhat black of colour, strong of body, and lean; avoiding grossness with continual exercise, of comlie favour, and jet eyes, the colour of which, when he waxed angry, would suddenly become reddish, the same as though they sparkled with fire." The length of his limbs was so remarkable as to procure for him the surname of Longshanks.

Two circumstances connected with the Medical history of Edward before he came to the throne are mentioned by historians. In 1271, when in Palestine, he, with many of his followers, was seized with one of the febrile disorders which appear always to have prevailed more or less epidemically in the camp of the crusaders. He returned to Acre, and remained there inactive for fifteen months, during which time his recovery became complete. It was in this interval that the attempt upon his life was made, an attempt which has been surrounded by so many circumstances of romantic interest. It appears that the fanatic Emir of Jaffa sent a "desperate Saracen," who stabbed Edward with a poisoned dagger. The prince despaired of recovery. But an English Surgeon pared away the edges of the wound, and the Master of the Templars sent him all the drugs then considered efficacious in such cases. Among other remedial means, it is said that his wife, Eleanor of Castille, endeavoured to suck the poison from the wound. Ultimately Edward recovered; and thus English history lost a pendant to Saint Louis.

In 1298, during his Scotch campaign, the king, in roughing it with his soldiers, slept upon the ground, and accidentally received a kick from a horse, by which, it is said, two of his ribs were broken. Be that as it may, the king was able to mount his horse, and to ride on with his army towards Falkirk, where he met and defeated the Scotch forces. Baker says that the accident happened in the course of the attack, "when the shouts of the Scots were so great that King Edward's horse, frighted withal, cast him off and broke two of his ribs."

Very few particulars are given of King Edward's last illness. Hume briefly says, "he unexpectedly sickened and died." Nevertheless, the illness, according to Matthew of Westminster, who perhaps gives the best account, lasted some considerable time. It would appear that Edward passed the winter of 1306 7, at Lanercost, near Carlisle, in a very infirm state of health; but on receiving certain news from his army in Scotland, "although he was then sick of a grievous distemper he bore his pain more calmly." He was still able to transact business. In 1307 he removed into Carlisle, where he partially recovered, as he held a Parliament or Council there. But "after the departure of his son he began to be afflicted with a dysentery." Still he thought himself able to take the field, but in four days he had advanced no further than Borough-upon-Sands, close to the border, and a distance of only six miles. Here he suddenly became worse, and died the following day. Brady and Baker say that the disease which ultimately carried him off was "dysentery, or bloody flux." Few historians do more than merely chronicle his death.

In a list of upwards of thirty "famous" men who flourished during this reign, Holinshed has only one Physician, "Michael, surnamed Scott, but born in the bishopric of Durham (as Leland saith), an excellent Physician, and no less expert in philosophy and the mathematics." According to Dr. Freind, Gilbertus Anglicus, our first writer on the Practice of Physic, also flourished in this reign.

EDWARD II. 1307—1327.

Murdered at Berkeley Castle in 1328, the year after his deposition.

In Grosse's "Military Antiquities," it is mentioned that in the 15th year of this reign, Surgeons or Medici were attached to the Welsh regiments of the army invading Scotland, but not to the English regiments. They received regular pay.

EDWARD III. 1327—1377.

Holinshed gives the following personal description of this monarch:—"Of body well made, of a convenient stature, as neither of the highest or the lowest sort, of face fair and manlike, eyes bright and shining, and in age bald, but so as it were rather a seemlinesse to those his ancient years than any disfiguring to his visage."

Although the reign of Edward III. was long and eventful, there are hardly any particulars to be gleaned respecting his medical history. Hume merely mentions his death, in the 65th year of his age. Holinshed notices his death in this manner:—"The king being more grievously vexed with sickness from day to day, either increasing by the course thereof, or renewed by some new surfeit, finally this year departed out of this transitory life, at his manor of Shene, now called Richmond." Brady says that the king died of "weakness, infirmities, and sickness," to which might be added grief for the loss of his son, the Black Prince, only ten months before, as well as much political vexation.

Holinshed gives a long list of learned men who flourished in this reign, among whom I find very few physicians. He mentions "William Grisant, a notable physician, surnamed of the country where he was born, Anglicus. He led the latter end of his life at Marseilles, had a son that was abbot of the regular canons of that city, who at length was advanced to govern the see of Rome, named Urbane V." Baker gives the names of three Physicians, but no Surgeons. John of Gaddesden, author of the "Rosa Anglica," was the first Englishman, according to some, who held the appointment of Physician to the King.

In those days it was a favourite custom for authors fancifully to adopt the name of a flower to designate what we should now call their "Treatise," or "Observation," on Disease. Thus the rose and the lily, from being, as I suppose, the fairest and most admired among flowers, were in much request for titles: and the practice served at least to show the author's own opinion of his work. But the "Rosa" of John of Gaddesden, although it has become famous, did little credit to Medical science, except in one or two particulars, and abounded in superstition and other absurdities. His dealings with his patients, moreover, would in these days be considered not altogether honest. Not many years afterwards his book was reviewed by Guy de Chauliac, the distinguished Physician of the Popes at Avignon, and faithful historian of the "Black Death," in the following terms:—"Ultimo insurrexit una fatua Rosa Anglicana, quæ mihi missa fuit et visa: credidi in câ invenire odorem suavitatis, et inveni fabulas Hispani, Gilberti et Theodorici."

The King's Apothecary, about the year 1360, was Peter of Montpelier. There is no reason to suppose he did anything more than supply drugs. Towards the end of this reign (1370) John Arderne removed from Newark to London, where he founded the art of surgery in England.

The following sketch of a celebrated amateur Physician of this reign is taken from Joshua Barnes' History of the Life of Edward III., published in 1688:—"In 1372 died Sir John Mandeville, Knight and Doctor of Physic, a man worthy of immortal memory. He was of an ancient and honourable

family, born at St. Alban's; but from his tender years did so addict himself to study that he seemed to have no taste for anything else but learning and experimental knowledge, as well divine as humane. He set not any value upon his high birth or alliance (for some say he married a cousin of King Edward's), but resolved to cultivate his mind, and to ennoble his more precious part with wisdom.

"Having, therefore, in the best preparation furnished himself with a competent knowledge of Scripture, he directed his study to Physic, as being an art most worthy of a gentleman and a candid nature, whereby he should be enabled to do good to the afflicted bodies of his fellow-creatures." He then travelled abroad through many lands, and became a great linguist, as well as philanthropist, and finally died at Liège in 1372.

RICHARD II.—1377—1399.

In this year Froissart makes the following entry in his Chronicles: "A true report was current in London of the death of Henry of Bordeaux. I could not learn the particulars of it, nor how it happened, the day I wrote these Chronicles." The doubts which then prevailed have never yet been completely cleared up. Most probably the king was starved to death during his imprisonment in Pomfret castle; for it is said that his body was subsequently exposed, and that no marks of violence were found upon it. Shakspeare, adopting the more popular version of the event, as given by Holinshed, represents Richard II. as falling in prison under the open assaults of his guards.

Holinshed gives a list of more than fifty learned men who flourished in this reign, among whom I find only one "Doctor of Physic and Astrologer," named Simon Bredon, and another who is noticed as a "black friar and a good Physician." Most of those mentioned in the list are either mathematicians or divines; and the latter, as was usual at the time, are classified as Wycliffites and Anti-Wycliffites. Baker, in his list of "men of note," does not mention any Physicians.

NOTES AND QUERIES.

He that questioneth much shall learn much.—Bacon.

No. 213.—A Worm Doctor and Hospital Surgeon.

Who is the Worm Doctor alluded to in the following classic rhyme? and who was the Hospital Surgeon?

——, of worm-destroying note,
With little folks who breed 'em,
Has all his life been *poisoning* worms,
And now's consign'd to *feed* 'em.

Thus, 'twixt our Doctor and his foes
Accounts are pretty trim;
For many years he lived by *those*,
And now *these* live on him.

Here lies in repose, after great deeds of blood,
An Hospital Surgeon thorough!
Who *bled* for his *own* and his *country's* good,
At St. Thomas's Hospital, Borough!

Poet's Corner, August 3. B. W. S.

No. 214.—An old Assistant-Surgeon.

Wadd, in his "Nugæ Canoræ," has the following upon some Surgeon, who was upwards of twenty years Assistant-Surgeon to an Hospital. Can anybody tell me who he was?

How hard was poor Sir ——'s lot
Among Chirurgic sages!
He all the work and honour got,
While they got all the wages!

Wadd adds, "We have here a singular instance of what trifling incidents make or mar a man's success in life. The gentleman alluded to lost his election as Assistant-Surgeon to an Hospital only by a few votes, *about equal in number to a dinner party* given by an active friend of his opponent."

Dublin, July 30, 1857. W.

No. 215.—The Scold's Bridle.

In Mr. Carrington's paper on "The Braule, or Scold's Bridle," in the *Journal of the Archæological Institute*, vol. xiii. p. 256, there is a suggestion by the Venerable Archdeacon Hale, that from the frequent use of that article of punishment, as well as of the ducking-stool, in the 17th century, "in those times, there being few lunatic asylums, and insanity being a disease little understood, it was probable that many insane women were violent, and punished as scolds, who would be now treated as lunatics." In none of the old works on insanity have I met with any corroboration of the above suggestion. Should any of your numerous readers meet with any passage in the older writers, alluding to its use in this class of cases, and mention their authority in your pages, they would very materially assist in throwing light upon an instrument the origin of which is at present but little understood.

I am, &c.

Chester, July 29, 1857. F. N. B.

THE LONDON
PRACTICE OF MEDICINE AND SURGERY.

REPORT ON THE ENUCLEATION TREATMENT OF UTERINE FIBROUS TUMOURS.

(Continued from page 118.)

The following table includes all the cases which we have been able to collect as examples of this operation. It shows a gross total of 39 operations, with 24 recoveries and 13 deaths. In two no information as to the final result has been obtained, but it is probable that one at least of these should be added to the list of deaths. So dissimilar are many of the cases one from another, and so different the details of the plans pursued, that it would be worse than absurd to treat these numbers as showing the amount of danger in any given case. They will, however, present to the painstaking reader the best means of forming his own opinion as to the degree of risk attaching to these operations, which it is in our power to offer. Before proceeding to comment upon them we must, however, advert to what is generally believed to have been the experience of a distinguished Physician, the majority of whose cases have not as yet been recorded.

DR. SIMPSON'S CASES AND OPINIONS.

Although but one of Dr. Simpson's cases is given in the following list, or has indeed been published, yet we are informed from reliable sources that he has pursued the enucleation plan in a series of six or eight. His favourite method has, we believe, been the application of caustic potass, so as to make an artificial opening over the tumour, and then to remove the tumour at a subsequent day, when it has been loosened by suppuration. If rumour is correct, the results obtained have not been encouraging, only one case having recovered. Dr. Arnott in his "Impressions of a Journey, etc.," states that Dr. Simpson told him he had had four cases with but one recovery, and that he did not recommend the operation. This was in 1851, and since then the Professor has, we believe, operated on several others. At page 117 of his "Obstetric Works," Dr. Simpson writes, "Attempts have been made by Amussat, Maissonneuve, Atlee, and others, to imitate by the knife this process of spontaneous or natural elimination; but we believe it to be, from the cases which we have seen, an operation that, as at present practised, will very rarely indeed succeed, and which ought to be very rarely, if ever, undertaken."

We have departed somewhat from our custom in thus recording many cases not connected with the practice of the London Hospitals, or even with British Surgery. It seemed, however, desirable on a subject of so much interest, and for the elucidation of which so few facts as yet have been obtained in London practice, to concentrate all the light that could be brought to bear from other sources. Most of the cases have, besides, been recorded in journals which are not accessible to the majority of the Profession; indeed we have to regret that we have ourselves been unable to procure the details of Cases 7, 8, and 18, owing to the works in which they were published not being contained in any of our London libraries. (a) We shall proceed next week to comment upon the series thus furnished, and to conclude the report.

(a) For reference to these and to other cases, we are indebted to Dr. West's excellent, though very brief, analysis of facts on this subject in his "Lectures on the Diseases of Women."

No.	Reference.	Hospital, Surgeon, &c.	Age.	State of Health.	Duration, Symptoms, and Size of the Tumour.	Details of the Operation.
1	Revue Médicale, Dec. 1841.	Amussat. Reported by M. Filhos, 1840.	50	Married, and the mother of four children. Much reduced by continued and profuse hæmorrhages.	Three years. Profuse floodings had been the principal symptom. The tumour filled the interior of the uterus, having formed in the parietes of the fundus.	The finger was forcibly thrust into the cyst of the tumour, and the bands of union having been broken down, the tumour was enucleated and removed by forceps. It was the size of an ostrich's egg.
2	Revue Médicale, August, 1840, p. 197.	Amussat. Reported by M. Troussel.	48	Married. Much reduced by hæmorrhage; thin, pale, and feeble.	Several years. The tumour was situated in the posterior wall, and formed a convex projection into the uterine cavity. The finger could be passed into the uterus.	The enucleation was begun by the forcible introduction of the finger. The tumour was dragged down, and the uterus completely inverted and brought externally. The adhesions were very strong.
3	Revue Médicale, March, 1845, p. 348.	Boyer.	47	Unmarried. Thin, pale, and weak from repeated hæmorrhages.	It was within the uterus, and was supposed to be the size of a lemon. She had suffered from uterine symptoms for many years.	The enucleation was effected by the finger, and with much difficulty, owing to the narrowness of the vagina and cervix uteri. Even after it was detached much difficulty was encountered in getting it out of the uterine cavity.
4	Clinique Chir. de la Pitié, vol. iii. p. 180.	Lisfranc.	Not stated.	....	She had suffered from menorrhagia. The tumour was imbedded in the posterior wall of the uterus.	The uterus was dragged down by forceps. An incision was made over the tumour, and the latter turned out with the finger.
5	Ditto.	Lisfranc.	Not stated.	Exceedingly reduced by hæmorrhage, etc.	The tumour was the size of a large hen's egg, and situate in the posterior wall of the uterus.	The uterus was dragged down by forceps, an incision was made over the tumour, and the latter enucleated partly by the finger and partly by a spatula.
6	Bull. de la Soc. Anatomique, p. 82, 1842.	Bérard and Amussat.	Not stated.	Much reduced by frequent hæmorrhages.	It was developed in the anterior wall of the uterus.	The os uteri was freely enlarged by lateral incisions. It was found impossible to enucleate the whole, on account of its firm union with the tissue of the uterus. A small portion was accordingly cut away, and the remainder left, in the hope of subsequent evulsion.
7	Des Opérations aux Corps Fibreux de l'Uterus.	Jarjavay.	..	....	....	....
8	Ditto.	Jarjavay.	..	....	....	....
9	....	Lisfranc, Hôpital de la Pitié.	Not stated.	Much reduced.	It was the size of a hen's egg, and situate in the posterior lip.	The uterus was well drawn down, and then the tumour being found to have but a thin envelope, the latter was lacerated, and enucleation completed.
10	....	Lisfranc.	Not stated.	Very feeble.	The size of a fist, and projecting into the vagina.	The most depending part of the tumour was seized with hooks, and by it the uterus was dragged down to the vulva. A large part of the tumour was now found to be embedded in the uterine wall. Enucleation with the finger was performed.
11	Gazette des Hôpitaux.	Maisonneuve.	..	..	....	....
12	Gazette des Hôpitaux, Dec. 10, 1849, p. 572	Maisonneuve.	40	In fair health, but had suffered much from hæmorrhage and pain.	Three years. The uterus was as large as at the fifth month of pregnancy. The tumour occupied the posterior wall.	The cervix uteri was freely incised with a lithotome, and the uterus having been inverted by traction, the tumour was enucleated with the finger. The operation lasted only five minutes.
13	Bull. de l'Académie de Médecine, xiv. 722	Maisonneuve, 1849.	37	Anæmiated, and reduced to a very feeble state by repeated hæmorrhages.	Four years. The uterus was enlarged to the size of the fifth month of pregnancy. The tumour was in its posterior wall.	The cervix uteri was freely incised by the lithotome. Enucleation was next practised with the finger, and finally the tumour was divided by scissors into two vertical halves, and removed. The uterus had been inverted.
14	Medical Times, August 20, 1853, p. 194.	Mr. Teale, the Leeds Infirmary.	56	Fat, but anæmic. Much exhausted by loss of blood.	The tumour was partially extruded, and already hung as low as the perinæum.	It was seized in forceps, and dragged so low as that the greater part protruded from the vulva; a strong whipcord ligature was then applied around it. With scissors and the finger the portion embedded in the posterior wall was enucleated. The womb was completely inverted in the process.
15	The Liverpool Medico-Chir. Journal, p. 45 *et seq.*	Mr. J. F. Grimsdale.	33	Stout, and in good health.	Probably two or three years. It filled the lower part of the pelvis, and pushed the uterus in front of it. She had had two miscarriages, with much hæmorrhage. The bleeding was not profuse prior to the operation.	An incision was made through the posterior wall of the cervix on to the tumour, and the latter somewhat separated by the finger. Abortion of a four months' fœtus took place on the second day. On the 15th day the tumour, in a sloughy state, was enucleated and removed.
16	The Boston Medical and Surgical Journal, vol. xxxi. p. 250	Dr. Gilbert, Philadelphia.	30	Married four months. Emaciated, pale, and sallow. Confined to bed.	The first flooding dated 19 months back. The tumour filled the vagina, and pressed on the perinæum.	The tumour was first encircled by a ligature of a skein of silk, which was tightly tied at a distance of 8 inches from the vulva, and around a circumference of 9½ inches. The ligature was tightened and pulled upon daily, and the tumour was found to be loose on the sixth day, and was extracted by means of the blunt hook.
17	The Boston Medical Journal, Oct. 9, 1844.	Dr. Pancoast.	37	Married. In poor health, from the uterine disease.	Had been treated for prolapsus, etc., for ten years. The tumour at the time of the operation was polypoid in shape, and hung so low, that part of it protruded at the vulva.	The operation consisted in enucleating partly with the finger and partly by means of forceps the upper part of the tumour, which was still united to the uterine walls.
18	Cliuik der Geburts hulfe, p. 408.	Chiari.	..	....	....	....
19	Edinburgh Monthly Journal, March, 1848.	Dr. Simpson.	46	Married, and the mother of 10 children.	Two years. She had been subject to severe flooding, and her health had become quite broken up. The tumour was large, and had pushed the uterus before it.	Caustic potass was applied to the tumour, about an inch behind the os uteri. Two days afterwards the artificial os thus made began to dilate. Ergot was given, and the tumour was expelled to a considerable extent. On the 12th day, as the patient's strength was failing, artificial enucleation was performed with the hand.
20	Medical Times and Gazette, July 25, 1857.	Mr. Baker Brown, St. Mary's Hospital.	33	Married. Anxious, weak, and low.	Five years of uterine symptoms; but the first flooding had only occurred about a year before. The tumour was forcing itself through the dilated os.	The tumour was separated from its adhesions to the cervix, and a ligature passed round it. It was then dragged downwards, whilst enucleation was completed by the hand introduced into the uterus. Three tumours were removed.
21	Medical Times and Gazette, July 25, 1857.	Mr. Hutchinson. Out-patient of the Metropolitan Free Hospital.	38	Unmarried, and of excellent health prior to the formation of the tumour. Reduced to the last stage of debility by repeated hæmorrhages.	About two years. The tumour filled the vagina as well as the uterus, the latter being the size of an infant's head. The tumour was a recurrent fibroid.	By means of the hand and of large forceps a lengthened attempt was made to drag the tumour down and enucleate. It was, however, not found practicable. Afterwards the tumour sloughed and came away. Some considerable portions were taken away at the operation.
22	Medical Times and Gazette, July 25, 1857.	Mr. Hutchinson. The same patient as above.	39	She was again reduced to a state in which life would probably not have been prolonged beyond a week or two.	The tumour was on this occasion almost wholly within the uterus.	The hand was introduced into the uterus, and made to act as a scoop in tearing away the tumour. The latter was, however, too soft to permit of enucleation, and only fragments were removed.

Immediate Effects of the Operation.	After-progress.	Final Result.	Remarks.	No.
The patient was much sunken for 12 hours after the operation. (No chloroform.)	She did fairly for the first fortnight, and then came to a standstill. On the 28th day a severe rigor occurred, and phlegmasia dolens followed.	Recovered in about 2 months.	The tumour weighed about 14 ounces. Very little bleeding attended the operation. The operation lasted 50 minutes.	1
The patient was much exhausted by the long operation, but the shock was not so great as might have been expected.	She did well for the first four days, when symptoms of inflammation led to venesection. About the 16th day phlegmasia dolens set in.	Recovered after a severe illness.	The tumour weighed 11 ounces. The operation lasted 2 hours and a quarter. Very little bleeding attended it.	2
The shock was not extreme, although considerable blood had been lost.	On the 3rd day the patient had a rigor, and she died with symptoms of phlebitis, etc. on the 6th.	Death on the sixth day.	In this case the tumour was becoming polypoid in shape. The cervix uteri was very narrow, and had to be dilated with sponge tents prior to the operation. The tumour was of oval shape, as large as a goose egg, and weighed 102 grammes. The operation lasted 2 hours.	3
No shock appears to have been felt.	Did well throughout.	Recovered perfectly.	The tumour was about the size of a pigeon's egg.	4
Shock not severe.	Some inflammation about the uterus occurred, for the relief of which venesection was practised.	Recovered.	....	5
The patient suffered a good deal from the immediate effects.	She continued feeble for about three weeks, without appearing in danger, when an attack of peritonitis occurred, and carried her off a fortnight later.	Died in 5 weeks.	At the autopsy most intimate adhesions were found to exist between the tumour and the uterus.	6
...	....	Died in 2 days.	...	7
....	....	Died.	...	8
....	....	Recovered.	....	9
....	Not stated.	Not stated.	....	10
....	....	Recovered.	This case was mentioned by M. Maisonneuve in a discussion before the Société de Chirurgie. The writer is not aware that its details have ever been published.	11
The shock does not appear to have been great.	For the first few days all went on well; then the symptoms of inflammation of the broad ligament supervened, and she became very feeble.	Believed to have died.	The circumference of the tumour was 27 centimetres. The writer has not been able to find any record of the conclusion of this case. It is, however, mentioned by Dr. West as having ended fatally.	12
Some difficulty was encountered in rallying her from the first shock. The bleeding had not been much, but it exhausted her.	When fairly rallied she progressed uninterruptedly well.	Recovered in about 6 weeks.	The operation lasted 45 minutes, and was performed under chloroform. The tumour weighed 19 ounces after removal.	13
Very little shock. The loss of blood had been trifling.	....	Recovered in less than a month.	....	14
Very little bleeding attended either of the operations or the abortion. No great shock after either operation.	In the interval between the operations the patient was low, and in a very critical state. After the second she appeared relieved, and progressed well. Some sloughy portions came away afterwards.	Recovered. Became pregnant subsequently, and was safely delivered.	The existence of pregnancy at the time the operation was commenced is an important feature in this case.	15
No great pain was caused, but sho was nervous and restless.	She was very ill during the time that the tumour was separating.	Recovered.	The tumour was in process of expulsion at the time of the operation. The mass weighed in a sloughy state 3 pounds.	16
A slight oozing of blood followed, but not of any large amount.	She did well throughout, and had not a single ill symptom.	Recovered, and regained excellent health.	In this case the tumour was already undergoing spontaneous enucleation, and was separated over the greater part of its extent. The operation occupied an hour. The tumour after removal was the size of a closed fist, and appears to have been an inflamed fibrous tumour.	17
....	....	Died on the 36th day.	....	18
The patient suffered a good deal from the profuse fetid discharge during the extrusion of the tumour.	After the removal she did well for three days, when rigors occurred, with sore throat and fever.	Death on the 6th day.	The tumour weighed nearly four pounds after removal. At the autopsy the peritonæum was found not inflamed, and the cavity in which the tumour had been embedded was granulating healthily.	19
The patient was very low afterwards, but gradually rallied.	Remained feeble, but for the first few days did not appear to be in danger. Phlebitis of the left femoral then set in.	Died on the 13th day.	The operation lasted an hour and a half, and the tumours removed weighed together more than 4 pounds.	20
The blood lost had not been in great quantity, but she was much exhausted.	For a fortnight afterwards was very feeble indeed, and in a critical state. Afterwards she made a rapid and excellent recovery.	Recovered.	The tumour grew again, and a second operation was performed. (See Case 22.)	21
The shock was not very severely felt, but she passed into a most sunken condition a day or two afterwards.	Symptoms of pyæmia with severe rigors occurred, but passed off under the use of turpentine.	Recovered.	A large recto-vaginal fistula followed this operation in consequence of the vagina having sloughed. The woman died about 6 months afterwards from the effects of a third growth of the tumour.	22

No.	Refereuce.	Hospital, Surgeon, &c.	Age.	State of Health.	Duration of Symptoms and Size of the Tumour.	Details of Operation.
23	Medical Times and Gazette, July 25. 1857.	Mr. B. Brown, St. Mary's Hospital.	31	Married, but childless. Exceedingly anæmic and nervous.	Two years' symptoms. The uterus was nearly as large as at the seventh month of pregnancy.	The os uteri was freely enlarged by incision on either side. Attempts were then made to draw down and enucleate the tumour, but it could not be accomplished.
24	Medical Times and Gazette, March 22, 1856, p. 283.	Mr. Teale : Leeds Infirmary	53	Married, and the mother of seven children. Still in fair health and stout, though much reduced by hæmorrhage.	Two years. The tumour was lodged in the posterior wall of the uterus, and the latter organ was pushed up in front of it. The tumour filled the upper part of the vagina.	An incision, three inches long or more, was made from the posterior duplicature of the vagina downwards through the coverings of the tumour. Enucleation was then effected by the hand, and the tumour was removed by lithotomy forceps.
25	Medical Times and Gazette, Aug. 1, 1857, page 117.	Mr. Teale : Leeds Infirmary	35	Unmarried, and never pregnant.	Two years. Geueral health pretty good, but reduced by the hæmorrhages to a state of great anæmia. The tumour depended from the open os uteri into the vagina.	The tumour was seized by midwifery forceps and drawn down. An incision was then carried round its base, and enucleation effected without any difficulty. The uterus was inverted in the process, and was afterwards replaced. Scarcely any loss of blood.
26	Transactions of American Medical Association, vol. vi. page 559.	Dr. Atlee : 1845. Philadelphia.	45	Health tolerably good. Married, and mother of several children.	The tumour had existed three years. The menorrhagia had been but slight. The tumour was very large and reached higher than the umbilicus. It was intra-uterine but firmly attached as low as the os.	At first incisions were made to separate the tumour from the interior of the cervix. After this ergot was given, and a similar procedure adopted a month later, and a third time after the lapse of five days. Six weeks after the first a partial enucleatiou of the now sloughing mass was effected. Several masses were separated by sloughing and enucleation afterwards.
27	The same. Page 569.	Dr. Atlee.	49	Married and mother of four children. In very poor health indeed. Had once been thought dead. Had had phlegmasia dolens.	Symptoms of five years' duratiou. The tumour was of large size and developed in the posterior parietes.	Ergot having been given for a day or two previously, a bistoury was passed up into the uterine cavity, and a deep incision made backwards into the tumour. The adhesions were found too strong to permit of euucleation. Repeated incisions were made into it during the next month.
28	The same. Page 579.	Dr. Atlee, 1849.	30	Married. Exceedingly anæmic; "skin of that peculiar straw-coloured and blanched condition so often observed in malignant disease, &c."	The symptoms of uterine disease had lasted for three years. Two years before a large polypoid mass had been removed by another surgeon.	The os uteri was incised, and on subsequent days repeated futile attempts were made to seize and enucleate the tumour. The tumour sloughed and came away piecemeal during a period of seventeen days.
29	The same. Page 585.	Dr. H. Hinekley	32	Same case as the above.	Profuse draining of blood was the principal symptom throughout the case. Œdema of the lower extremities.	A futile attempt had been made to ligature the base of the growth, which failed on account of the tumour being found to be attached by at least its upper half to the uterine walls. It was three days afterwards removed by "avulsion," being torn away piecemeal. Ergot was given after the operation, and many portions of slough came away.
30	The same. Page 586.	Dr. Atlee, May 12, 1849.	33	Unmarried. In fair health.	Menorrhagia. The tumour was intra-uterine but firmly attached in all parts. At the autopsy the tumour proved to be of the ordinary fibrous kind.	Gastrotomy was first performed in the hope of finding a pedunculated tumour. The uterus having been examined and the tumour being found to be contained within it, the abdomen was closed. The patient recovered well. Five months after this the procedures for enucleation were commenced by incising the os uteri, etc.
31	The same. Page 596.	Dr. Atlee, November, 1849.	36	Unmarried. Formerly Phthisical.	The tumour had been noticed for three years. It had the appearance of being at the full term of pregnancy. The tumour was within the body of the uterus, and had not distended the cervix.	Repeated incisions into the cervix uteri and lower part of the tumour were practised during the period of a month. Ergot was meanwhile administered. The tumour sloughed, disintegrated, and came away piecemeal, the process occupying three months.
32	The same. Page 601.	Dr. Atlee, May 29, 1850.	42	Married; three children. Corpulent, but very anæmic. Bloodless from repeated floodings. The operation was performed in a condition of much urgency.	The tumour reached as high as the umbilicus. It was developed in the posterior wall of the uterus.	A knife was passed into the cavity of the uterus and made to cut freely backwards into the tumour. Partly with the finger and in part with the knife a considerable extent of the tumour was separated from its envelope. Ergot was given, and the tumour sloughed. On the fourth day enucleation of the sloughing mass was performed.
33	The same. Page 608.	Dr. Atlee, October 1, 1850.	49	Unmarried. Stout, but anæmic,	The tumour was intra-uterine and nearly as large as a child's head.	The os uteri was incised, and at repeated sittings the adhesions of the tumour to the cervix were divided, and attempts at enucleation were made. Several portions of tumour had been got away during a treatment of about six weeks, when on one occasion, during a repetition of the endeavour at enucleation, she fainted away, and for some time appeared dead. She rallied at the time, but died two days later.
34	The same. Page 613.	Dr. Atlee.	31	In good health.	It had existed four years. The os uteri was closed, and the cervix entire. The tumour was intra-uterine, but firmly united. It extended above the umbilicus.	The cervix was incised, and repeated operations for gradual enucleation were performed from November 5 to December 30. The tumour sloughed and disintegrated. The discharge from the tumour continued for three months or more.
35	The same. Page 616.	Dr. Atlee, November 16, 1850.	36	Married. A coloured woman. Corpulent.	The tumour was within the parietes, and the uterus was retroflected on it. It was not felt distinctly above the pubes.	Incisions were made into the cervix and the tumour itself, at different times repeatedly. The operations were difficult and unsatisfactory, on account of the corpulency of the patient.
36	The same. Page 620.	Dr. Atlee, September 9, 1851.	31	Good. Unmarried.	Tumour the size of a fœtal head, prominent above the pubes. It was intra-paricta1. Cervix folded on the tumour.	The treatment by incisions, etc., as described in the above cases, was pursued, and the greater part of the mass was got away.
37	The same. Page 627.	Dr. Atlee.	42	Much reduced by hæmorrhages.	The tumour was behind the uterus, and reached above the umbilicus. It had a base of attachment to the posterior wall, and had prebably originated as an intraparietal growth.	On December 20, gastrotomy was performed, but the tumour "being found not removable," the abdomen was closed. She recovered well. Four months afterwards treatment, by repeated incisions into the tumour from the vagina, was commenced. It was persevered with for a month, during which the exposed part of the tumour was undergoing degeneration.
38	The same. Page 632.	Dr. Atlee.	62	Large and corpulent.	The tumour was intra-uterine. The os uteri was well dilated.	Incisions were made into the os uteri and the tumour, and the adhesions of the latter to the uterus were divided by the knife. At successive operations portions of the tumour were got away.
39	The same. Page 637.	Dr. Atlee.	49	Stout and in fair health.	Symptoms for about two years. The tumour was intra-parietal, having been developed in the tissue of the anterior wall. The tumour was about the size of an adult head.	The knife was passed into the uterine cavity, and a free incision made forwards into the tumour. Partial separation of the tumour from its cyst was next effected by means of the finger, and the ergot was subsequently given. On the 10th, a large portiou of the tumour in a sloughy state was removed, and on the 13th another portion was got away.

Immediate effects of the Operation.	After-progress.	Final Result.	Remarks.	No.
She was in collapse afterwards.	She scarcely rallied from the collapse following the operation, and death took place about 30 hours after.	Died.		[23
No marked effects appear to have followed; scarcely a drop of blood had been lost.	She did remarkably well; no ill symptoms supervening. She was, however, feeble for some time afterwards.	Recovered perfectly.	In the operation the cavity of the womb remained intact. The case is, considering the size of the tumour, &c., perhaps the most satisfactory on record. The tumour measured four inches broad by six long, and weighed 18 ounces	24
	The patient did uninterruptedly well, and was discharged cured, within a month of the operation.	Recovered perfectly.	In this case the tumour was in process of spontaneous enucleation.	25
The enucleation procedure lasted two hours, and was followed by much exhaustion.	The case appears to have progressed very well until within ten days of the death. The pneumonia was attributed to imprudent exposure.	Death from pneumonia one month after the enucleation.	Dr. Atlee's estimate of the weight of the tumour, as nearly "10 pounds," is probably a gross exaggeration—a remark which applies to almost all the weights he mentions. It is probable, however, that the tumour was a very large one.	26
None of the operations were in themselves serious or prolonged.	During the month she was under Dr. Atlee's treatment, sloughing of the tumour was going on, and there was fetid discharge, &c. She appears to have borne up well.	Recovery. The tumour had not been removed.	Six weeks after the first operation the patient set off for home, a distance of 600 miles. The process of sloughing was still going on, and she was in poor, though improving health. The tumour had much diminished, and after reaching home it continued to do so. Six months afterwards the tumour was reported to have quite disappeared, and she was in good health. Three years later she was in "perfect health, and without a vestige of the tumour."	27
No operation of serious import was performed.	The patient appears to have borne the process of sloughing of the tumour very well.	Recovery.	(The tumour recurred. See next Case.	28
The operation lasted two hours, and the patient was much exhausted afterwards.	The patient was weak and ill for some time, but subsequently did well.	Recovery. Last report only a month after the operation.	This case presents us with an excellent example of the "Recurrent fibroid" tumour of the uterus. It is a good parallel to Cases No. 21 and 22, excepting that its stages were more delayed. On June 12, 1846, Dr. C. removed from the vagina a polypoid mass larger than a child's head, which had been spontaneously expelled. She regained her strength, and was well until the autumn of 1848, when the floodings recurred. In July, 1849, Dr. Atlee effected the removal of the recurred growth. She remained well for nearly two years, and then had a third recurrence, for the extirpation of which Dr. Hinekley operated in November, 1851. No record of the case is given later than December of the same year, when the patient was doing well.	29
The operation was a very trifling one.	Two days after the operation she had a violent rigor, which ushered in a fatal attack of erysipelas.	Death from erysipelas and peritonitis, eleven days after the operation.	At the time of doing the operation in this case, Dr. Atlee was attending some patients with erysipelas, and there is little doubt but that the contagion was conveyed.	30
No single operation of any severity was performed.	She bore the treatment well, although the discharge was very profuse and offensive. Large quantities of ergot were given.	Recovery.	The recovery was complete in every respect, the whole of the tumour having come away.	31
She was very ill at the time the enucleation was performed. No blood was lost, the whole tumour being in a sloughing state. The patient remained very feeble till the time of death, 12 hours afterwards.	On the third day from the commencement of the proceedings, the patient had a severe rigor, after which fever and oppressed breathing followed.	Death on the fifth day, from irritation, fever, &c.	The mass enucleated in a sloughy state, weighed five pounds. The autopsy showed that the whole tumour had been removed. It had been rather loosely contained in a cyst in the posterior wall of the uterus.	32
The operations, excepting the last, were well borne.	She remained as well as could be expected, though feeble and liable to faintings. Her fatal illness was sudden and unexpected.	Death in the seventh week.	Death was assigned to fatty degeneration of the heart, but appears to have been a good deal connected with the low state into which the patient had been reduced, first by the disease, and secondly by the treatment.	33
No material ill effects are noted.	No ill effects are recorded. The discharge was exceedingly fetid, and continued for nearly a year.	Recovery, which was complete in about a year.	In this case, as in all the others, the ergot was used both before and subsequent to the incisions. She was in perfectly restored health two years afterwards.	34
No ill effects are noticed.	The treatment was desisted from before the whole tumour was got away.	Recovery; a portion of the tumour remaining.	In this case it would appear that the ulceration artificially produced healed over before the entire mass had disintegrated.	35
No ill effects mentioned.	No ill effects mentioned, until the fatal peritonitis, which began on the 18th day of treatment.	Died on the 20th day, of acute peritonitis.	At the autopsy several malignant growths on the uterus were found. The right ovary was cystic.	36
No ill effects mentioned. On one occasion it was necessary to plug, on account of bleeding after the incision.	She appears to have borne the procedures well, but they were finally desisted from, because they had been carried as far as deemed safe.	Recovery (partial); some part of the tumour still remained.	The tumour had greatly diminished in size. The discharge from it had continued some weeks after the last operation, and had been very fetid. No ergot was given, as the tumour was extra-uterine.	37
No ill effects are noted, excepting that on one occasion she had a slight chill, followed by fever.	Appears to have borne the treatment well.	Partial recovery. The discharge still continued at the time of last report.	Dr. Atlee writes that he was apprehensive of cancerous degeneration having supervened, but from his narrative there does not appear reason to suspect more than that a portion of the original tumour still remained.	38
The patient complained very little of the operation. Chloroform was not used.	She was feverish and ill during the treatment, but not seriously so.	Complete recovery.	The whole of the tumour had been got away. The treatment had occupied about two months. The ergot had been found exceedingly useful in inducing contraction of the uterus on the tumour.	39

ROYAL LONDON OPHTHALMIC HOSPITAL.

REPORT OF THE OPERATIONS PERFORMED FROM 25th JUNE TO THE 25th JULY, 1857.

1. *On the lachrymal sac, 4 operations were performed.*—The four cases were treated with the actual cautery, three without, and one with chloroform; beyond the section in the skin, hardly any pain was complained of. The cases were of several years' duration, and had undergone other curative attempts before this; in two of them there was a cicatrix over the sac in the skin; the lower lachrymal puncture, as well as the passage in the nose, was closed; there was, on pressure, regurgitation of purulent matter through the upper puncture. One case (patient of Mr. Poland) illustrates especially well the pathological changes the sac undergoes after long duration of the disease. The swelling of the right lachrymal sac originated two years ago, and has since then continued discharging purulent matter through both lachrymal puncta; since January he had been treated by introduction of the probe, but did not improve; on passing the probe, one had at times to overcome great resistance, at other times it passed very easily. Before opening the sac the probe was passed down into the nose, to ascertain its relative position in the sac; opening the sac, the mucous membrane was found thrown into thick folds, stretching especially across the lower part of the cavity, whose bony walls had been dilated in every direction; many of the mucous folds were torn, parts of them detached, hanging in shreds into the cavity; the opening towards the nose was free. The difficulties in passing the probe, the occasional bleeding from the nose, the impossibility of the matter escaping downwards, etc., were in this case easily explained by the changes in the sac itself. The probe was then withdrawn, and the actual cautery applied to the whole surface of the sac. None of the cases mentioned in the last report, and treated in this manner, are well yet, but all are progressing favourably. These cases leave the Hospital immediately after the operation.

2. *Eyelids, 19 operations.*—Eight cases of trichiasis, treated by removal of the edge of the lid, as far as regards the eyelashes.

Two nævi, both in children; one treated with a ligature round its base, the other touched with concentrated nitric acid.

Three cases of entropium. The continued irritation of chronic ophthalmia had caused a narrowness of the palpebral aperture, and with it the entropium. In two cases it was tried, by enlarging the outer angle of the palpebral aperture, to facilitate the movements of the lids, and to obviate the entropium, with the view of saving the eyelashes.

In the third case an oval piece of skin was removed out of the lower lid.

One severe case of ectropium of the left upper lid in a girl (patient of Mr. Critchett), consequent on disease of the frontal bone. The cicatrix everting the lid was divided parallel to the edge of the orbit; transversely to this a vertical incision was made, two skin-flaps formed, and these, drawn down so as to protect the eye, were united with sutures. At present the case looks much improved; the eye remains protected.

One ectropium of the lower lid was treated by removing an oval piece of the conjunctiva at the part where it was most everted.

Two tumours of the upper lid, both in children. The one (patient of Mr. Wordsworth) was a small round sebaceous tumour, attached to the periosteum of the upper orbital edge; the other (patient of Mr. Critchett) consisted of a general enlargement of the upper lid, of which, in two succeeding operations, the greater part was removed, the necessary skin being preserved so as to raise the upper lid, and prepare the orbit for the reception of a glass eye. The shrunken eyeball, together with the deformed upper lid, are congenital defects, and a rare instance of a general pathological (?) change of the subcutaneous tissues of the upper lid; a report of it will be given at some future time.

Two cases of ptosis. On one, the usual operation by removal of a piece of skin had been performed, but with unsatisfactory result. Mr. Bowman therefore applied a new plan. Instead of the common operation by removal of a piece of skin, he everted the lid, and excised the posterior or upper edge of the palpebral cartilage, together with about half-an-inch of the tendon of the levator palpebræ inserted into it. Previous to the actual removal of the piece, very fine threads were passed, so as to bring together the edges, and thus secure a shortening of the tendon of the levator muscle to the extent of three-quarters of an inch. The lid was then turned back into its natural position. It is expected that the levator palpebræ will be thus permanently shortened, and thus be enabled to aid in raising the lid. The upper cul de sac of conjunctiva is exposed to little movement, and readily heals.

3. *Muscles of the eyeball.*—Operations for internal strabismus, 13; for external, 2. In all cases has the tendon been divided subconjunctivally. In one extreme case of external strabismus, Mr. Hulke employed Mr. Bowman's method of holding the eye outwards during the first twenty-four hours, by drawing an exceedingly fine thread through the conjunctiva close to the outer edge of the cornea, then carrying the needle from within outwards through the skin at the outer canthus, and securing with plaster the thread on the skin.

The subconjunctival operation has been shown at this Hospital to be so successful, simple, and short, as to be preferable to any other.

4. *Cornea.*—One case of removal of the superficial layers of the cornea opposite the pupil with the broad needle and forceps; these layers were opaque from a deposit of lead; there was some bleeding from the cut surface of the cornea. One case of transparent conical cornea in both eyes,—in the left, so as to make vision extremely imperfect. Mr. Bowman operated in a new manner upon the left eye. First, the broad needle was introduced from right to left about half-way between the top of the cone and the outer corneal edge, making an oblique corneal wound; then the outer pupillary margin of the iris was drawn out with the canula forceps, and left in the oblique wound, the latter being by its peculiar shape more fit to keep the iris incarcerated. By this is the round pupil transformed into a transverse one, which, when the same operation is performed opposite the inner pupillary margin, will form a transverse slit, and, it is hoped, will supersede the optical appliances (transverse slit) usually employed.

5. *Sclerotica.*—Several small round staphylomatous enlargements of the sclerotica opposite the ciliary processes. The man (a patient of Mr. Dixon) had had iritis, etc., with adhesions in both eyes. Mr. Dixon punctured the largest of the staphylomata with the broad needle. Some clear fluid, afterwards some blood, escaped. The staphyloma appeared much reduced in size a few days afterwards.

6. *Iris.*—Nine operations for artificial pupil. In all the cases except two the corneal opening has been made with the broad needle, and the iris been drawn out either with the canula forceps, common iris forceps, blunthook, or needle-hook. In two cases the drawn-out piece of iris was left in the corneal wound; in the others it was snipped off with scissors. If not prevented by the morbid state of the cornea the pupil was made downwards and outward.

One case of considerable prolapse of the iris after extraction. The eyelids were kept open with the speculum, and with a pair of small iris scissors an oval piece removed, and so much of the vitreous humour as escaped was also snipped off. Such a prolapse keeps up chronic ophthalmia, and the sooner it is removed the better.

7. *Crystalline lens.*—16 operations for extraction of the lens through an upper corneal section.

In 2 cases the lens escaped enclosed in its capsule. In one case, on touching the capsule with the curette, it was found abnormally tough, and entering it, the lens, resembling very soft wax, broke into a superior and inferior half, which had to be taken out separately. In one case the iris was wounded, and in one the corneal section had to be enlarged with the blunt-pointed knife.

Two cases of congenital cataract (2 boys), and 7 cases of cataract in elderly people, operated upon with the needle; 6 of those had soft lenses; and the 7th was an old man, subject to rheumatism, on whom the needle operation had been successfully performed before.

Three cases, where the previously broken up lens was let out by a small corneal opening. Two cases of extraction, where the pupil was entirely closed by the sequelæ of iritis. In the one an entire, in the other a small corneal section, was made. In the one the deposit in the pupil was divided with the iris-scissors, and the lens with part of its capsule drawn out with the curette. In the other case, the pupil was first

entered at its outer part, and the corneal wound enlarged on withdrawing the knife; then, with the broad needle, the pupillary incision was extended, and with the canula-scissors continued so as to excise a disc-shaped piece of the pupillary deposit; this was drawn out with the canula-forceps, and then the lens removed with a cataract-needle. It should be remarked that, in these operations, each instrument has been used where it best answered the purpose, and, also, that the iris, changed in its mechanical properties by the previous inflammation, retains (as a fixed curtain) its position during the operation. The patient saw after the operation. Ten cases where a film or false membrane behind the pupil was torn across: with one needle in 7 cases, with 2 needles in 2 cases, and one case where the greyish membrane was drawn out with the canula-forceps.

8. *Excision of the eye-ball; 3 cases.*—1. The eye-ball had been damaged by purulent inflammation during childhood; at present there was an ulcerating opaque cornea, with three small staphylomatous enlargements of the sclerotica at its upper part; the sclerotica was squared by muscular pressure. 2. Opacity of cornea, after purulent ophthalmia during childhood; since then, during ill-health, several attacks of inflammation, of which the last, accompanied by severe pain, has continued six months. No perception of light. 2. Twenty years ago a piece of a percussion-cap entered the eye; after the ensuing inflammation, the eye shrunk to a small irregular mass. Periodical attacks of pain, the sympathetical affection of the other eye, and the age of the patient, induced Mr. Streatfield to remove the stump in the manner in which the excisions are performed at the Hospital. The foreign body could not be found. The eye affords a very good example of the formation of a bony shell at the place of the capillary layer of the choroid.

The facility with which excision is performed, its great freedom from risk, and the perfect adaptability of an artificial eye ought to make us consider almost every disorganized eye which is the seat of pain or annoyance as a foreign body, whose removal is accomplished the sooner the better; if not painful at the time, it is a deformity, liable at any time of ill-health to become the seat of inflammation, and to affect sympathetically the opposite organ. Omitting the scientific advantages of excision, it is not only unwise but incorrect to bring before the patient's imagination the idea of "taking the eye out." Medical men must soon learn to value the simplicity of the operation.

Besides these 94 operations, there have been in the out-patients' consulting-room during the last month 110 minor operations; among these, 49 for diseases of the lachrymal puncta. The puncta have been slit up on the conjunctival aspect as far as the caruncle, with a view to facilitate discharges from the sac, and to allow of the use of larger probes than the ordinary puncture will admit. The canula-lancet has been sometimes used to penetrate strictures at the entrance to the sac, and the full-sized No. 6 probe has been then passed through the nasal duct. Mr. Bowman's method of treating lacrymal obstructions through the slit up puncture, without making any opening in the skin, is being constantly practised in a number of cases, and its value tested. But this will require a more extended notice on a future occasion.

THE SOUTH KENSINGTON MUSEUM is now open. It is about three-quarters of an hour distant from Charing Cross. The view of the buildings and the grounds well repays a visit. Comprised in the museum, are the Department of Science and Art from Marlborough House; an educational department, and a good library, well arranged; the collections made by the commissioners of patents, models and machinery; a trade collection; an Economical Museum; and the Sheepshanks collection of pictures, 234 in number. The effect of the whole is admirable. On Monday, Tuesday, and Saturday, and on Monday and Thursday evenings, the museum is open to the public; on the other three days of the week—students' days—there is a charge of sixpence for admission, and the catalogue costs only a penny. The Architectural Museum lately kept at Canon-row, Westminster, is also removed to South Kensington.

COMPULSORY VACCINATION.—*Punch* says—"The other night Sir G. Pechell presented a petition in parliament against the Vaccination Bill from certain inhabitants of Brighton. Yes! quite so; we presume these were the Brighton undertakers."

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Medical Times & Gazette.

SATURDAY, AUGUST 8.

THE "MANLY VIGOUR" ADVERTISERS.

THE decision given in the Bloomsbury County Court last week, and recorded in the pages of our last number, has dealt a heavy and well-merited blow at the fraternity who have so long driven a prosperous trade at the expense of some of the weak and foolish portion of the community. The facts of the case are as follow; and they are remarkable and peculiar, as indicating not merely the features of an individual transaction, but of a large number of similar delusions practised upon the public.

A young man, a widower, in a respectable position of life, but of nervous and excitable temperament, has the misfortune to contract a slight gonorrhœa, which yields to ordinary remedies, but leaves behind a very trivial gleety discharge, occasionally perceptible after making water or evacuating the bowels. This person learns from a friend that a certain advertising Doctor possesses the exclusive power of curing all such maladies, and he accordingly repairs to his residence, where he finds the Doctor, or the party who enacts the character for the occasion. The fact that the Doctor is not always personally visible, or that there are two or more Doctors all introduced to the visitor by the same name, is an important circumstance in connexion with legal consequences, as will readily be understood. The Doctor, then, or his double, has an interview with the patient, and by merely looking at him he assures the latter that he is labouring under spermatorrhœa, and that, moreover, he is guilty of self-abuse. The patient, although he has probably never heard of spermatorrhœa before, believes that he is labouring under that complaint, but he vehemently denies the other charge made against him. At the commencement of the consultation he is told to pay a guinea, which he does accordingly, and then, in the blanks of a printed formula, he is required to fill in his name, age, occupation, condition in life, whether married or single, or likely to become married, with other particulars, of a nature *to be subsequently useful to the Doctor*. In the present instance it was stated in this formula that the patient had confessed he had been guilty of self-abuse, and the sheet containing this statement *was produced by the defendant, and read in court*, although the patient most positively declared, on his oath, that he had never made any such confession.

The next stage was to inform the patient that the fee for curing spermatorrhœa would be twenty pounds, the Doctor being satisfied with that moderate sum under the circumstances, although he produced a book showing the very large fees which he had received from other parties labouring under the same malady. The applicant, who, by the way, was a clerk at a salary of £100 a-year, had not the sum with him,

but he promised to pay it; and in a short time he did pay it, receiving in exchange a parcel of medicines, and an injunction to repair home, and shut himself up in a room at the same temperature for twenty-eight weeks! The patient remonstrates that such a course would be most ruinous to him, as he must sacrifice his employment by obeying the injunction; but he is told that he will certainly die if he does not comply. The attendance continues for some time, and the patient becomes worse; but, on informing the doctor to that effect, he is told that his case is a peculiarly difficult one, and that he cannot be cured unless he pays thirty pounds more. This additional sum is accordingly paid, and altogether this unfortunate dupe parts with no less a sum than fifty-one pounds one shilling, having paid about eighteen visits to the doctor, and having been charged therefore nearly three pounds a visit! The patient, however, obstinately perseveres in getting worse; and, on applying to the doctor again about Christmas last, he is informed that he now has syphilis! and that he cannot be cured unless a further sum is handed over. This statement and this demand, however, are too much for the patient, or rather the victim, who is confident that he has not rendered himself liable to contract the disease in question, and who now begins to suspect that the demand of more money is an attempt at extortion. He then luckily goes to a respectable member of the Profession, who finds that he is not labouring under either spermatorrhœa or syphilis, and, by the administration of ordinary remedies for debility and nervousness, restores him to health in a week or two.

The defence made to the action was such as might have been expected. The plaintiff is cross-examined as to his name, occupation, condition in life, the name and business of his employers; the object of these questions in an open Court of Justice being, of course, to confuse and abash the witness, and to deter others, who have been similarly deluded of their money and their health, from coming forward for redress; and a document is produced, partly printed and partly written, detailing in full the name of the plaintiff, and other particulars of his history, among which is the confession of a practice, the commission of which he positively denied, and the confession of which he never made. Then shifting the ground of the defence, an attempt is made to show that the defendant is not the defendant, and that the person who really saw the patient, took the greater part of the money, and supplied him with the medicines, was an unauthorized assistant who has gone over to Ireland. The latter person, however, possessing, in addition to his other accomplishments, the power of ubiquity, is seen by the plaintiff in Court during the whole of the proceedings.

The Profession will rejoice to learn that the defence, if defence it could be called, was utterly unavailing, and that the presiding Judge not only gave a judgment for the whole sum claimed, but highly complimented the plaintiff for the moral courage he had displayed in bringing the case before the public tribunals of the country.

The defendant in the above case is a person named Kahn, who is the proprietor of an exhibition in Coventry-street, to the questionable nature of which we have on previous occasions directed the attention of the Profession, and whose advertisements, discarded from the pages of the Medical Press, are still, we regret to observe, inserted in several of the political Journals. This exhibition, under the pretence of advancing the objects of science, is calculated, whether intentionally or otherwise, to pander to the lowest appetites of the multitude, or to terrify the timid and the ignorant; and in order that the visitors may be in no doubt as to one at least of the motives which actuate the exhibitors, small books are distributed at the doors, in which all the atrocities and all the absurdities of the "Manly Vigour" school are elaborately set forth, and the victim of real or imaginary disease is directed to apply in a certain quarter for the relief of his suffering. How the bait is sometimes caught by the unwary is now a matter of history, and those who would preserve their health, or restore it when impaired, would do well to peruse the above lines, or the account of the transaction which we gave last week.

The subject is a disgusting one, and the artifices and roguery of the quack fraternity on the one hand, and the credulity and folly of their dupes on the other, afford sad examples at once of the wickedness and of the weakness of human nature. But it is occasionally necessary to expose the sources of moral corruption, with a view to their removal, just as in the physical world a nuisance must first be proved to exist before means can be taken for its suppression. The parties to whom we are now generally referring (and their name is Legion) have too long been allowed to prey upon the vitals of our countrymen, who have been duped out of enormous sums, under the pretext of being cured of complaints which probably never existed, or, if they did exist, were aggravated rather than relieved by the treatment employed.

Writing as Medical men, we have no hesitation in expressing our opinion that, in the great majority of cases, spermatorrhœa is an imaginary disease, or is mistaken (wilfully or not, we will not assert) for common gleet. That the disease does occasionally occur we no more doubt than we doubt the existence of hydrophobia; but we no more believe in its general prevalence than we believe that every person who is bitten, or imagines he is bitten, by a dog will become raving mad and die in convulsions.

We hope, after the complete exposure of the system which has now taken place that others will evince the same moral courage as that which characterised the plaintiff in the late case; for a few more such actions, for the recovery of money improperly obtained, will put a complete stop to the nefarious traffic which has been so long and so successfully carried on, and will thus contribute in no small degree to the cause of public morality.

THE WEEK.

A case has just been decided in the House of Lords, by which the trustees of St. George's Hospital lose a legacy of £60,000. It seems that the late Earl Beauchamp bequeathed that sum for the foundation of almshouses at a place called Newland, a small hamlet with a population of two or three hundred persons; but he provided no site for the erection, and left the money only on condition that some one would furnish a site within twelve months of his decease, which a benevolent gentleman accordingly did. From the nature of the bequest, however, some legal difficulties arose, and it was determined by the Master of the Rolls and the Lords Justices that the appropriation of the money to the building of almshouses was illegal, and judgment was given to pay it over to the Trustees of St. George's Hospital, a provision in the will having been made to that effect. The case was then carried to the House of Lords, where the judgment of the other Court was reversed, and the money was made to revert to its original destination. Apart from the legal questions, on which we do not presume to give an opinion, (particularly on a point where two of the highest courts of judicature differ so widely,) we consider it a great injustice to the public interests that so large a sum should be devoted to the very insignificant purpose of founding twelve almshouses in an obscure and petty village, when the money might be made available for the relief of suffering upon a large scale by giving it to one of our Metropolitan Hospitals. For the sake of Medical science and of humanity, therefore, we regret the decision at which the House of Lords has arrived.

The great Sewage question has lately begun again to excite attention, from the circumstance that the olfactory nerves of the Members of the House of Commons have been made cognisant of the existence of unsavoury odours under the very windows of the Houses of Parliament. Mr. Adderley, a few nights since, asked Sir Benjamin Hall for some information on the subject of the pestilential stench which emanated from the river, or from the drains, or from the deposits of bones and other refuse from the Lambeth side of the water, and whether any plan could be devised for obviating the nuisance, or at least for shutting out the smell from the House. The reply of the Right Honourable Baronet, the First Commissioner of Works, proved that he had examined the source of the nuisance, but possessed no power of removing it. It was shown that the stench arose from the abominable state of the sewers and of the river Thames in general, and from the "blowing up" of a certain trapping of a sewer in Whitehall-yard: and the matter was referred to the Metropolitan Board of Works, whose particular province it was to rectify the evil. While the purification of the Thames and the utilization of the Metropolitan Sewage are still questions which are open to discussion, Sir Benjamin Hall is trying his hand in purification on a small scale, and is about to carry into execution a very praiseworthy scheme for improving the condition of the Serpentine in Hyde Park, having successfully made a similar improvement in the lake in St. James's Park. The state of the Serpentine, along the banks of which our aristocracy are in the habit of taking their daily drives, is, according to the evidence of scientific witnesses, truly appalling; for not only is that piece of water filled with innumerable multitudes of foul animal and vegetable forms, and has a thick flooring of black and putrid mud, but it is the receptacle of the sewage from enormous drains, among which one comes from the cemetery at Kensal Green, bringing with it, of course, the decomposing remains of innumerable corpses. The cleansing of this piece of water is a step which will reflect great credit on Sir Benjamin Hall, and the numerous frequenters of Hyde Park will have much reason to be grateful that he has turned his attention to the subject.

One objection urged by the druggists to the "Sale of Poisons Bill" is that the keeping a number of medicines under lock and key would be very inconvenient to druggists. Fortunately this objection can be answered, for a very simple contrivance for locking and unlocking bottles and jars has been patented by Messrs. Stevens and Fitch. The stopper is fastened by a screw-key, which passes through the neck of the bottle and lodges in an indentation in the stopper. The contrivance appears to be a very useful one. It is exceedingly simple, and as it really affords a very easy means of keeping poisons under lock and key, we trust that this necessary precaution will be insisted on in the Bill now before Parliament.

In the spring of the present year, we alluded to a very obnoxious statute passed by the Governors of the Devon and Exeter Hospital, by which practising Medical men, being donors and subscribers to the funds, were excluded from the Committee. This statute called forth a warm remonstrance from Dr. Shapter, who was himself aggrieved by the alteration in question, and who resented the innovation on the ground of its manifest injustice towards the Profession in general. We are glad to find that, at a meeting of the Governors held last week, the statute was repealed unanimously. We have read over the discussion which took place upon the occasion, expecting to discover some reason why practising Medical men should be excluded from the Committee of the Hospital; but we can find no better explanation than the fear that the practitioners so introduced might possibly interfere in the Medical management of the institution, and that those gentlemen who had been disappointed candidates for the Medical appointments might, if appointed upon the Committee, take means of annoying their successful rivals. The futility of this argument was fully exposed at the meeting; and those who advanced it became so well convinced of its want of foundation, that they joined in voting for the repeal of the statute. It should be mentioned to the credit of Dr. Shapter, that when an attempt was made to disarm his opposition by making a special exception in his own favour, he declined to accept any terms which did not comprehend the admission of any and every member of the Profession.

A case of considerable interest, in a toxicological point of view, has just been tried, in which a man was accused of having poisoned his grandchild with a preparation of phosphorus. It was proved in the evidence that the mother of the child was sent by her father to procure some arsenic or ratsbane at a chemist's shop in Truro, the usual pretext being alleged, namely, that it was to be obtained for the purpose of poisoning rats. The chemist, however, recommended another preparation, called *phosphor paste*, and he sold the woman a pot of this compound, which was said to contain between seven and eight grains of phosphorus. This paste was to be spread upon thin pieces of bread, and placed over the rat-holes. The deceased child was seen to be eating something, supposed to be the paste in question; and after some time had elapsed, was seized with pain in the stomach, vomiting, convulsions, and death. The post-mortem examination revealed very decided traces of inflammation in the stomach and bowels, and blisters were seen in certain parts. One portion of the intestine was invaginated, an appearance which has been seen in one similar case before, and which has been recorded in Dr. Taylor's well-known book on Poisons. The chemical evidence was unsatisfactory, as Mr. Herapath could not detect any phosphorus in the contents of the viscera of the child; but the difficulties of the detection will be readily appreciated when it is stated that the body had been buried nearly a month, and that the phosphorus may have passed into the state of phosphoric acid, which is one of the normal constituents of the human body. Mr. Herapath, moreover, although he tested the body for arsenic, antimony, mercury, copper, lead, strychnia, and other known irritant poisons, did not at first suspect the use of phosphorus, owing to the rarity of the cases in which that substance is employed as a poison. He analyzed the phosphorus paste, and found it to consist of five per cent. of phosphorus in a finely divided state, the remainder being starch, water, and colouring matter. The prisoner was acquitted, not because there seemed to be any reasonable doubt that the child died from the effects of phosphorus, but because the proof of administration was not complete.

The great question of the drainage of the Metropolis, after having occupied the attention of the Metropolitan Board of Works, and having been referred by Sir Benjamin Hall to three scientific gentlemen, Captain Douglas Galton, Mr. James Simpson, and Mr. Thomas E. Blackwell, has now been prominently and decisively brought under the notice of the public, by the appearance of an elaborate Report from those gentleman, who have spent six months upon the task, and who seem to have investigated the subject in all its bearings. They admit most fully the magnitude of the evil which now exists, considering it to be rather understated than otherwise; and they propose a very comprehensive plan for

its removal. It is, indeed, frightful to contemplate the mischief which is likely to arise from the pollution of our great river, receiving the accumulated sewage poured out from a population daily increasing in numbers; and indeed the only wonder is, that with such a source of pestilence continually running by our very walls, the metropolis is so healthy as it is proved to be by the evidence of statistics. The plans hitherto proposed for carrying away the sewage have been inadequate, and the spots designated for the outfall have been too near the metropolitan district to be permanently advantageous, so that the populations situated near the outfall would be injured rather than benefited by the schemes lately devised. Without entering into the whole of the lengthy and able arguments adduced by the Commissioners in favour of the present plan, it may be stated generally that it is proposed to carry the sewage down as far as Thames Haven, in Sea Reach, below Gravesend on the north side, and there discharge it into the river. The reasons assigned for the choice of this spot are, that the current of the river is there particularly strong, and would rapidly carry the sewage into the sea. The best outfall on the south side of the river is said to be Higham Creek in the Lower Hope. The total cost of this very comprehensive and gigantic scheme, the execution of which it is proposed shall occupy five years, is estimated at £5,437,265. We are sorry to find the Commissionors are unable to devise any plan for the utilization of the sewage, and that they are decidedly unfavourable to any attempt at its deodorization for the purpose of conversion into manure. The objections to its use, however, are chiefly of a technical nature, with the exception of that which describes the deodorizing process itself as likely to create a nuisance; and although the systematic employment of the sewage is not recommended, every facility would be given to its utilization by private enterprise. On the whole, we cannot but speak in terms of commendation of the great scheme thus proposed, and enormous as the cost undoubtedly will be, we conceive that the money would be well and profitably expended.

REVIEWS.

Hydropathy; or, the Natural System of Medical Treatment. An Explanatory Essay. By Edward W. Lane, M.A. M.D. Edin. Pp. 132. London: 1857.

The author of this book is the proprietor of a hydropathic establishment, and his object in appearing in print is to explain to the Profession and the public the grounds of his faith in the so-called water-cure. With many of the propositions and arguments put forward by Dr. Lane we have no fault to find; for instance, we entirely agree with him in his praises of fresh air, water, and exercise in the treatment of chronic diseases; and we are not disposed to quarrel with him for condemning the system of drenching patients with a superabundance of drugs. In fact, we have no hesitation in declaring our belief that change of air, serenity of mind, agreeable society, moderate exercise, frequent bathing, and appropriate diet, are most valuable agents in preserving health, or in restoring it when it is impaired; but we do not, therefore, call ourselves hydropathists, and decry the legitimate practitioners of medicine. Nor are we the more disposed to embrace the science(?) of hydropathy when we learn that its founder, Priessnitz, was, in the language of Dr. Lane, (p. 7,) "utterly ignorant of everything that could deserve the name of a scientific knowledge of such diseases as those of the lungs, the heart, the brain and entire nervous system; and yet, with the rashness and presumption of untutored genius, and strong only in his self-reliance, he did not hesitate to undertake the cure of these diseases, nay, of all diseases." In fact, a hydropathic establishment may be a good thing for a person worn out by debauchery or ennui, and the beautiful scenery and the agreeable associations with which such resorts are connected, leaving out of the question the hot or the cold water, or the damp sheet, will undoubtedly contribute to the cure of many maladies, especially of the nervous class; but woe to the sufferer from serious disease of the brain, the heart, the kidneys, or any other important part, if he places himself under the care of the followers of a visionary peasant, who was "utterly ignorant" of the structure or functions of any of these organs!

The Asylum Journal of Mental Science. Published by Authority of Medical Officers of Asylums and Hospitals for the Insane. London: 1857.

This Quarterly Journal has now been established for four years, and the latest number bears ample testimony that the members of the Association who support it are keenly alive to all improvements in the treatment of the insane, and to modern progress in cerebral and mental pathology.

The present number contains an article by Dr. Noble, of Manchester, on certain prejudices and antipathies which are found to exist after apparent cure in some cases of mental disease, often to the annoyance and injury of the Medical men who have treated the patient with results otherwise satisfactory. Dr. Noble lays down some rules by which this state of mind in the convalescent insane may be anticipated, and, to some extent, guarded against.

Dr. Tuke, of York, contributes an able paper upon Mania; and other articles upon Delusion, the Statistics of Insanity, the Annual Reports of Asylums, Prison Life, the Scotch Lunacy Commission, etc., make up the number.

On referring to previous numbers we find that the publication is remarkable for the abundance of well-written papers it contains on practical subjects connected with insanity. We find among the authors the names of Conolly, Monro, Sutherland, Thurnam, Boyd, Hitchman, Robertson, and others, whose authority in all matters relating to the care and treatment of the insane deservedly possesses great weight. The editor, Dr. Bucknill, contributes many papers with the same practical tendency. We may especially mention a series on the Diagnosis and the Pathology of Insanity, which well merits attentive perusal. The articles on the Classification and Forms of Insanity, by Dr. Henry Monro, contain the results of clear and original thought. Dr. Monro especially traces the influence of general ill health, expressed in a painful condition of what he calls the Functional Sense in the rise and progress of mental disease.

Dr. Wood has an able article on the urgent need of a State Asylum for Criminal Lunatics; a subject on which he expresses a strong conviction, with the authority derived from a long experience of the wretched inadequacy of the criminal wards at Bethlem. Many may doubt whether the general interests of Medical science are likely to be promoted by journals dependent upon the funds of associations, and others may doubt whether the special department of psychological medicine can require or support two journals; but no doubt can be entertained that the *Asylum Journal* has contained many articles of considerable value to the psychological Physician.

The Elements of Materia Medica and Therapeutics. By J. Pereira, M.D. F.R.S. etc. Fourth Edition. Vol. II. Part ii. 8vo. Pp. 880. London: 1857.

Dr. Taylor and Dr. Owen Rees have performed their task of revising the third edition of the standard work of Dr. Pereira in a manner truly admirable. The articles on Chloroform and Cod-liver Oil have been entirely re-written, and now constitute an excellent epitome of the present state of our knowledge of these two important additions to modern therapeutics. The section on the Vegetable Alkaloids has been much enlarged; short notices are given of Amylene, Pepsine, and other recent acquisitions of our Materia Medica. The edition completed by this part is really as perfect an Encyclopædia of Materia Medica as can be desired by student or practitioner.

The Chemical Atlas. By A. Normandy. London: 1857.
The Dictionaries to the Chemical Atlas. By A. Normandy. 8vo. Pp. 396. London: 1857.

The Atlas before us consists of tables intended to show at a glance the operations of qualitative analysis, and to give copious indices of tests and reactions. It is a sort of guide or map to aid the chemical student, manufacturer, miner, or assayer, in his researches.

The Dictionaries are bound together in a single volume. The one is a Dictionary of simple substances, their simple combinations, and the tests by which they may be identified; the other is a Dictionary of tests and re-agents, "indicating their preparations for the laboratory, the means of testing their purity, and their behaviour with simple substances, and their simple combinations." It only remains for us to add that the author has been remarkably successful in his attempt to assist those who, having some knowledge of chemical manipulation, wish to make this knowledge practically useful by carrying on qualitative analyses.

BOOK NEWS.

In a Memoir entitled *Recherches sur les Monorchides et les Cryptorchides chez l'Homme*, M. Ernest Godard has brought together a number of curious facts connected with the non-descent of one or both testicles into the scrotum. The conclusions at which he arrives are, that where one testicle has descended and is in a healthy state, the generative function is not impaired; but when both testicles are retained in the abdomen the procreative power does not exist. In the case where one testicle has descended, but has become diseased, the patient is in the same condition with the cryptorchide; but the monorchide may recover his powers when the diseased condition of the testicle is removed.—Mr. Sheriff Mechi has published a pamphlet, informing us *How to Farm profitably, particularly on stiff, heavy Clays;* and his remarks contain no small amount of good sense and sound scientific reasoning. We are happy to learn that Mr. Mechi's experiments in farming have not only been satisfactory in a philosophic point of view, but that they have returned a good profit for the sums invested in conducting them. This fact must be encouraging to those who, like Mr. Mechi, are anxious to improve the existing state of agriculture.—*Light in the Valley: My Experiences of Spiritualism*, is a book by a lady, Mrs. Newton Crosland. We are quite unable to comprehend its meaning, and we doubt whether any of Mrs. Crosland's readers will be more successful than ourselves.—Mr. Henry Beasley presents us with the Fourth Edition of the *Druggist's General Receipt-Book; comprising a copious Veterinary Formulary; numerous Recipes in Patent and Proprietary Medicines; Druggists' Nostrums, etc.; Perfumery and Cosmetics; Beverages, Dietetic Articles, and Condiments; Trade Chemicals; Scientific Processes; and an Appendix of Useful Tables.* This copious title-page indicates the abundant and miscellaneous character of the contents of the book, which is so well known that no other comment is necessary than the announcement of its appearance in a new edition, rendered still more exact than the former editions by the care and attention of the compiler. —*The Annual Report of the Royal Edinburgh Asylum for the Insane for the year* 1856, gives a very satisfactory account of the condition of that establishment, in which the average number of patients has been 538. Both pauper patients and those of the better classes are received; and in consequence of the great number of the latter who have been admitted into the Asylum, a detached cottage has been employed for their reception. This cottage, we are informed, is beautifully situated in the midst of charming scenery, and the patients are employed in gardening. A slight epidemic fever, resembling scarlatina, visited the Asylum towards the close of the year, but without any fatal, or even serious results; and although suicidal attempts were frequent, no accident happened from this cause.—*The Thirtieth Annual Report of the Directors of James Murray's Royal Asylum for Lunaties near Perth*, informs us that the establishment is in a most prosperous state, the number of admissions being augmented every year. In the Report of the Medical Superintendent the question is discussed upon the good or bad effects produced by tobacco upon insane patients, and the result deduced is, that, without offering any opinion as to the abstract moral or physical effects of this plant upon the human system, it is found expedient to allow the moderate use of tobacco and snuff to the unfortunate inmates of the establishment. The humane system of treatment is fully carried out in the Perth Asylum, and music, balls, tea-parties, *fêtes champêtres*, and pic-nics have been devised for the amusement of the patients.—Mr. Andrew Nisbet, Surgeon-Dentist of Glasgow, has brought out a pamphlet entitled *Digestion and the Teeth*, in which he enlarges on the importance to health of restoring the power of masticating the food, and makes some observations on the diet suitable for old persons. He thinks an animal diet very necessary to promote prolongation of life to advanced ages, but that the food should always be slowly and thoroughly masticated. Hence the importance of artificial substitutes for the decaying teeth of old age.—In Mr. Charles Phillips's *Vacation Thoughts on Capital Punishments*, the objections to the punishment of death are eloquently urged, the substitute proposed in cases of murder being perpetual imprisonment in a separate murderer's prison, hard labour for life, the silent system one day in each month, the most frugal fare compatible with health, and strict exclusion from the external world.—Two very useful additions to the *School Series*, edited by Mr. Gleig, the Inspector-General of Military Schools, have appeared, one, *A Class Atlas of Physical Geography;* the other, *Questions* upon this Atlas. There are 20 maps, and 10 sections and diagrams in the Atlas, exceedingly well got up, illustrating the whole range of physical geography, while the price is only half-a-crown.—*An Ophthalmologist:* Gräfe believes that when solution of atropine is applied to the conjunctiva, it passes through the cornea by endosmosis, and so produces the maximum of mydriasis. If given internally until symptoms of intoxication come on, and then continued as far as safety will permit, Gräfe never saw more than a medium degree of mydriasis supervene. If complete mydriasis ever be observed after the local use of belladonna around the orbit, he says some portion has always found its way between the eyelids. Atropine has no effect upon the striated muscular fibres of the iris in birds.

PROGRESS OF MEDICAL SCIENCE.

Selections from Foreign Journals.

THE DISCUSSION ON CHLOROFORM AT THE PARIS ACADEMY OF MEDICINE

(Concluded from page 96.)

M. Jobert observed, that at first apparatuses were used in France but had now been abandoned, and by himself among others, one great objection to their employment being the impossibility of properly observing the patient's face, this forming so good a guide to the surgeon. Moreover, they often get out of order, the air entering or leaving them with difficulty, while it is difficult to appreciate the quantity of chloroform employed in a given time. The sponge allows of our bringing the chloroform to different distances from the patient, according to the impression made by it. It is the best means we can employ, never leading us astray. M. Jobert doubts whether there exists an example of death from chloroform by asphyxia. It kills like a violent poison; not, however, by producing changes in the blood, but by acting upon the nervous system in excess, from attempting to produce anæsthesia too rapidly. In a case of cancer of the breast, for which he operated in a spacious well-ventilated apartment, a sponge was employed upon which half a drachm of chloroform had been poured. The assistant brought it gradually towards the patient's nose, but it had not reached to within four inches of this when she exclaimed, that she was suffocated and should die. Her face became suddenly pale, and the pulsation at the wrist was not restored for a quarter of an hour. Had an apparatus been employed this patient would have undoubtedly died. In the case of another lady the operation was performed while she reclined in an easy chair. Scarcely had inhalation commenced than she exclaimed she was dying, and there was only just time to lie her on the floor. She, too, would certainly have died had an apparatus been employed.

M. Nélaton merely wished to address the Academy in reference to a contra-indication for the employment of anæsthetics which had never been adverted to, viz. the state of drunkenness. It is, indeed, an exceptional case, but still one that is sometimes met with; and there is an example of death having been produced during the employment of anæsthetics in an intoxicated person. M. Masson, a distinguished Surgeon, was called in the middle of the night to a woman given to drink, who, during a paroxysm of drunkenness, had sustained

a compound fracture of the knee. M. Masson, intending to operate at once, administered chloroform; but the patient, once plunged into the anæsthetic sleep, could never, in spite of every effort made, be roused again. It remains a question whether the woman died in consequence of the mode of administering the chloroform, its impurity, an idiosyncrasy, or the state of drunkenness. As illustrating idiosyncrasies, M. Nélaton mentioned that he had to operate for a recurrence of cancer in the patient mentioned by M. Jobert. Four or five drops of chloroform were poured upon a simple compress and held before the patient's face; but scarcely had she taken five or six inspirations when she became motionless, her face being pale, and her pulse not to be felt. For some minutes her state caused serious uneasiness. In relation to M. Masson's case, M. Nélaton performed some experiments upon dogs, and found that when these animals were made previously drunk with alcohol, chloroform acted both more promptly and more fatally.

M. Ricord observed, that while with an apparatus asphyxia might, if desired, be produced, this would be impossible with a sponge or a compress. As to the contra-indications of the employment of chloroform, he is more alarmed at a predisposition to syncope than at all the others. He does not approve of stating certain quantities, as has been done, within the limits of which anæsthesia, it is said, must be produced, or the patient is exposed to alarming accidents. This is dangerous to do in a professional point of view. Large quantities may be required in certain cases before sleep is secured. M. Sédillot's proposition, that with good chloroform and a careful administration accidents will not occur, is alarming, because it is not correct; for in spite of all, accidents may occur. The rules for the employment of chloroform should be: Resist having recourse to it as much as possible; for it is a serious accident in an operation, more serious than is hæmorrhage. If it is employed, let it be slowly breathed, together with plenty of air, but without an apparatus, until anæsthesia is produced. Leave persons to administer it by the modes they best understand. "One word as to that ultimate accident of chloroform,—the menace of death. As it has been truly said, it is not only the pulse we must watch, but the respiration also. But supposing, in spite of every precaution, the accident happens, one thing has always much struck me: trifling means are first had recourse to, vinegar or a feather is fetched, or the tongue is drawn forwards, and then, as a last resource, recourse is had to artificial respiration or tracheotomy. In similar cases, I have never failed in having recourse immediately to artificial respiration: it is the best of means, and yet, strange to say, it is the last that is employed. It is possible that we may be alarmed too soon, whichis of but little consequence; but from the instant we have these fears we should employ the most heroic means for fear of not succeeding. I operated upon a lady for some little vegetations. She insisted upon the employment of chloroform; but after some inspirations, she almost immediately fell down pale and pulseless, the pulsations of the heart having also ceased. I immediately practised artificial respiration, mouth to mouth, and had the happiness of restoring her. I have an intimate conviction that a few seconds longer, and all would have been too late. We should then commence by the means *par excellence*. The persons come to themselves at once, regaining their memory and presence of mind, without going through the ordinary phases of restoration after anæsthesia—another proof of the efficacy of the means I am insisting on."

M. Devergie, replying to the preceding speakers, complained that the purport of his communication had been exaggerated. He only intended to protest against M. Gibert's assertion that, as all deaths from anæsthesia are due to idiosyncrasy, in no case could the practitioner be held responsible for their occurrence; and against M. Velpeau's declaration, that all forms of apparatus hitherto invented are well nigh useless. He had shown that death was referrible to different causes in different cases, and maintained that in some of these it was due entirely or in part to asphyxia. One cause of asphyxia might arise from the admission of too small a quantity of air to the lungs, and when this was the case the Surgeon would be in fault; while by means of a suitable apparatus (such as that of M. Duroy) a suitable supply of air may be secured, and responsibility shielded. He passed in review the various opinions expressed by his opponents, exposing their contradictions with each other, and reproaching the Surgeons with having no written formula which might serve as a guide for the employment of anæsthetics, and as a safeguard from all responsibility in using them.

M. Gibert observed that the important point in the discussion was the possibility of the occurrence of sudden death, this being that which involved Medical responsibility. It has been explained by the toxical action of chloroform. But upon what is such an opinion supported? There have been a considerable number of sudden deaths this year in France without their cause being very clearly known, and still less is known when chloroform complicates the question. M. Gibert could not admit that a substance which can act upon some as the rapidest poison is supported by others with perfect impunity. Another very natural explanation is syncope, and syncope apart from the complication of chloroform has nothing very alarming in itself. The good sense of the public has declared itself on the subject of anæsthetics more to the purpose than have the *savans*—somewhat too fond of obscure dissertations,—and indicates to us that we may employ chloroform without fear or scruple, above all without apparatuses, but not without precaution. As to what has been said on its not being employed for minor operations, enough consideration has not been paid to the wishes of the patient; and as long as he is not prohibited, M. Gibert will continue to use it in all cases in order to spare needless suffering.

M. Cazeaux believed that all forms of apparatus are liable to lead to the exclusion of a sufficiency of air or to some obstruction of respiration, while this is impossible to result from holding a compress at some distance from the nose and mouth. The quantity inspired is of no consequence, the sole danger consisting in the diminution of air. In some cases, as in that of a puerperal woman attended by himself, the application of chloroform may have to be continued for hours, and as much as ten drachms may have to be consumed, the sole dosing that is applicable being that by which the effect sought to be produced is attained. M. Cazeaux, believing that the Academy is, in consequence of this discussion, called upon to express a distinct opinion upon the subject, proposed the following resolutions:—1. That in the very rare cases in which patients have died, there is nothing to prove that they have died of asphyxia. 2. In the present state of the question it is impossible to say that the sponge or the compress offers less security than do apparatuses.

M. Cloquet, however, observed that, as during the discussion the great majority of the Surgeons who have spoken have declared that apparatuses are more likely to favour than to prevent accidents, the Academy, as the supreme tribunal in Medical matters, should pass a resolution objecting to their employment.

M. Robert said, that any such decision on the part of the Academy would be deplorable. It would tie the hands of those who desired to employ apparatuses, and from their present position of aggressors would convert them into defendants. In spite of all that has been said, apparatuses do not impede respiration, and they only mask parts there is no necessity to see. The conditions of the circulation and respiration are those which require to be watched, and apparatuses offer no impediment to their due observation. M. Robert next went on to declare, amidst loud exclamations of dissent, that in all the cases of death which are known to have taken place the sponge or compress, and not an apparatus, was employed. Not a single death had ensued when apparatuses had been employed; and this did not arise from these never being used, for Charrière makes "thousands" of them every year.

M. Guérin regarded as dangerous the statement that had been made, that unlimited quantities of chloroform may be inspired. Such quantities may, indeed, be poured into an apparatus, but the quantity penetrating into the lungs is very limited. Experiments which he has carefully performed on dogs show, that while ʒj. of chloroform will cause anæsthesia, ʒii. will induce death; exhibiting, by inference, the value and importance of dosing the substance in man.

M. Larrey felt astonished at M. Robert's statement, that in all the cases in which death had occurred no apparatus was employed. Why, in the recent case of Dr. Snow's, the one, in fact, that had given rise to this discussion, an apparatus was used.

M. Ricord called to mind that all the Paris Surgeons had commenced with employing apparatuses, and then abandoned

them. As to dosing the substance, it is a chimera. It has been attempted to assimilate chloroform to the toxical agents of the materia medica, but without success. The medicinal agent here does not remain. It enters the system, and an instant after it has left it. It would be like dosing a mixture that is constantly being rejected by vomiting. The variable respiration of individuals, and the varying time required in different persons for the production of anæsthesia, prevent all dosing; and the self-regulating apparatus has the inconvenience of not permitting the increase of the dose, if need be, at a given moment.

M. Velpeau could not agree with those who stated that Academical discussions were barren in results. He believes that they are always of great importance, spreading abroad as they do the notions acquired on a given subject, and causing their penetration into the minds of every practitioner. The present discussion has this remarkable about it, that all the Surgeons of the Academy, with one exception, are in accord. The great point at issue is, whether certain apparatuses are better than others; for, in point of fact, all are apparatuses, the simple sponge or compress just as well as the mechanical contrivances. M. Velpeau having tried them all does not believe that the latter are preferable. Now, how are these questions of science and practice to be decided? By experience. And who in such questions are better judges than the Surgeons? And do you expect that, on the faith of theory, they will abandon a practice sanctioned by thousands of facts? Would this be reasonable? As to the statement of M. Devergie, that the fewer accidents of late are due to chloroform being less frequently employed; this, as far as M. Velpeau's practice is concerned, is untrue. He has always resisted the employment of chloroform for minor operations,—that is to say, resisted to a certain point; for we have less to bear in mind the severity of the operation than the fears it gives rise to, and in pusillanimous persons it has been sometimes necessary to resort to it for mere explorations. As to responsibility, we must not lose sight of the fact, that medicine has no competent judges beyond her own ranks, and that, if she is to make progress, she must be left free. Moreover, it is not for Practitioners to go in search of this responsibility. In fine, we should not proscribe the use of apparatuses, but especially must we not insist upon their employment.

The Academy was about to proceed to the vote, when M. Cazeaux's resolutions, with M. Cloquet's addition, would certainly have been carried. M. Devergie, however, after again commenting upon the various speeches with apparently unchanged convictions, produced two resolutions of his own, which, to the amazement of every body, were couched as follows:—"The Academy declares, in the present state of science, etherisation may be practised either with or without apparatus; and that the choice of means may be left to the appreciation of the Practitioner." This is, literally, to leave the matter *in statu quo*—probably by far the best manner in which it can be left, but rather a strange procedure on the part of M. Devergie, after his original declarations and laborious defence. M. Malgaigne was for rejecting the compromise, and declaring war, on the part of the Academy, against apparatuses; but the better sense of the majority prevailed, and M. Cazeaux, withdrawing his resolutions, those of M. Devergie were carried.—*Bullétin de l'Académie*, tom. xxii. p. 820, &c.; and *Gaz. Médicale*, Nos. 22—30.

PROVINCIAL CORRESPONDENCE.

BRITISH MEDICAL ASSOCIATION, NOTTINGHAM.

On Wednesday evening the members were invited to a Conversazione at the Mechanics' Institute. The fine hall of the Institution was decorated with great taste. The walls were hung with pictures, rare plants were exhibited, and many of the manufactures of the town were practically illustrated. The inmates of the Blind Asylum sung very admirably a selection of pieces, accompanied by a powerful organ. To this soirée a large number of the non-medical inhabitants were invited, and the whole thing went off very pleasantly and successfully. The members of the Institute are forming a natural history museum, and have already got a very good collection of specimens.

On Thursday morning the members of the Association breakfasted together at the Royal Exchange rooms. At this gathering the members of the Medical Reform Committee were hastily summoned to discuss an important communication made to the President of the Council. This turned out to be a letter from the Hon. J. W. Cowper to Sir Charles Hastings, stating that the Government intended bringing in a Medical Reform Bill during the next session of Parliament. On the assembling of the members at half-past eleven, the letter was read, and a resolution, expressive of the gratification of the meeting, was moved by Dr. Sibson, and seconded by Dr. Lankester. Dr. Stewart moved a resolution, directing the Reform Committee to listen to no plan of Medical reform that allowed the Government an exclusive or predominating influence in the Council of Medical Education. After much discussion, this resolution was negatived, on the ground that it was an unnecessary direction to the Reform Committee. Dr. Robertson then read the address on Medicine. This address, which was very elegantly written, took up the subject of Sanitary Science, and embraced a history of sanitary arrangements in various parts of the world down to the present time. On the reassembling of the meeting in the afternoon, several papers were read. Mr. Henry Thompson led off with a paper on strictures of the urethra. Mr. Hatton read a curious case of occlusion of the uterus after impregnation, in which it was necessary to make a crucial incision in the uterus, and to destroy the child, in order to effect delivery. Dr. Edward Smith read a paper on the effects of exercise on the respiratory movements. Dr. Sibson read a paper on aneurism of the aorta; and Sir Henry Cooper finished a case he had commenced in the British Medical Journal. Thanks were then voted to all parties—to the President, to the Mayor, the Town-council, local Secretaries, and others. This terminated the business proceedings.

The dinner took place in the Royal Exchange rooms. Mr. Eddison's health and habits not permitting him to take the chair, Dr. Hutchinson presided. About fifty sat down to a dinner which certainly did great credit to "mine host" of the Flying Horse: turtle, venison, abundance of fruit, and good wine, were not unacceptable to those who had been doing the work of the Association. The Mayor, the Rector, the Town-clerk, and other notabilities, were present. The usual toasts were given, many good speeches were made, and by the time the last trains for London left Nottingham, few but Nottingham men were left in the room. Thus passed over the twenty-fifth meeting of the British Medical Association. It was not a large meeting. Few members from the immediate towns were present. Perhaps the branch meeting recently held at Nottingham may account for this. But the objects of the Association were effected, members of the profession distant from one another were brought together, and important social and political questions were discussed. The determination to meet next year at Edinburgh was an important move. Dr. Alison was elected President; and should he not be able to fulfil the duties of the chair, there can be little doubt that the Association will be well received in Scotland, and lay the foundations of its extension in the North.

GENERAL CORRESPONDENCE.

NEW INSTRUMENT FOR ADULT VARUS.

[To the Editor of the Medical Times and Gazette.]

Sir,—In the last number of your Journal there is a description, by Mr. Adams, of an apparatus, which he terms "a new instrument for adult varus." Now, Sir, having made several similar instruments for the Royal Orthopædic Hospital in the year 1850, may I be allowed to state, that the instrument alluded to is simply a modification of that I made to the instructions of Mr. Tamplin. It was tried in some half-dozen cases, and then laid aside as unnecessary.

The instrument I made consists of a leg and thigh-trough, several side cog-wheels to abduct the foot, and a side cog-wheel at the ankle-joint for flexion and extension. The intention of the instrument was to overcome the inversion of the foot in a shorter time than the long outside splint, which is always used at the Hospital. In practice it was found to possess no superiority, the long splint effecting quite as much as the patient can bear; for this reason it is now never used by either

of the Surgeons of the Hospital, Messrs. Tamplin and Lonsdale. I believe I am correct in saying, that I have heard Mr. Lonsdale speak of the similarity of the instrument, as that gentleman has expressed himself before Mr. Adams and myself to this effect: "That the instrument was only a modification of that formerly employed at the Hospital."

As Mr. Adams has not made any allusion to the original instrument, I think I am justified in calling the attention of your readers to the fact, that the merit is due to another gentleman: on this account, I beg to solicit your insertion of this note in your ensuing number. I am, &c.

21, Giltspur-street, City, Aug. 4, 1857. J. Ferguson.

POOR-LAW MEDICAL RELIEF.

[To the Editor of the Medical Times and Gazette.]

Sir,—Your readers will remember that a short time since you noticed a letter which I addressed to the Poor-law Board, containing the following question: "As one of your Medical officers, I shall feel obliged by your informing me if the lame, impotent, old, blind, and such other among them, being poor and not able to work, are the only persons I am, by virtue of my office, bound to attend, and what course I am to pursue when the relieving officer sends me orders to attend persons not coming under the class above named." To this I received the annexed unsatisfactory reply.

Pending further inquiries which are being made on the subject, it may be interesting to your readers to peruse an answer to a Union Medical officer in the *Justice of the Peace* for July 25th, which is appended. Allow me to remark, that this is not a question of the propriety or impropriety of the labouring classes having Medical orders for their families, but simply the state of the law on the subject, and the legal right of the Poor-law Board to impose upon the Union Medical officers the duty of attending all whom the relieving officers may choose to consider as "poor," a term which is very indefinite, even in the interpretation clause of the 4th and 5th Will. IV., c. 76, sec. 109, which says, "The word 'poor' shall be construed to include any pauper, or poor or indigent person applying for, or receiving relief from the poor rate in England and Wales, or chargeable thereto."

Let the Union Medical officers continue their aid, and it is more than probable that before another session shall have passed the Poor-law Board will see the desirableness of rendering us that justice which we have a right to expect at their hands, considering the oath they have taken, "that they will faithfully, impartially, and honestly, according to the best of their skill and judgment, execute and fulfil all the powers and duties of Commissioners;" an oath which sounds somewhat strange when we find that nearly 400 petitions have been presented to Parliament this session praying for redress of grievances, which ought to have been "impartially" considered by thePoor-law Board, and, if they had any foundation, "faithfully and honestly" redressed.

I am, &. Richard Griffin.

12, Royal-terrace, Weymouth, Aug. 1, 1857.

"Poor-law Board, Whitehall, 14th July, 1857.

"Sir,—I am directed by the Poor-law Board to acknowledge the receipt of your letter of the 30th ultimo, and in reply to the inquiry which it contains to inform you that under the regulations of this Board it is the duty of a district Medical officer to attend duly and punctually upon all poor persons requiring Medical attendance within the district assigned to him, whenever he may be lawfully required to furnish such attendance by an order in conformity with those regulations.

"I am, Sir, your obedient Servant,

"Courtenay, Secretary."

"Richard Griffin, Esq."

Answer to a Union Medical Officer, in the *Justice of the Peace* for July 25th:—

"If in any case the person whom the Medical officer is called upon to attend is not a 'poor person,' he would not, as we conceive, be bound to attend the case under the regulation (Art. 206, No. 1, General Consolidated Order), but in the event of his refusing to attend the case upon a regular order of the relieving officer, he must be prepared to prove that the person named in it was not 'poor' within the meaning of the 43 Eliz. c. 2. If he is not so prepared, then the most prudent course will be to attend the case until the next meeting of the Guardians of the Union, when he should report the circumstances of it to them, and take their directions for his future guidance. If, on the other hand, he attends the case in pursuance of a lawful order, he cannot afterwards say that he did not attend by virtue of his office, and sue the relieving officer or the Guardians for the value of his services. As regards the right of a relieving officer to give Medical orders in cases such as those mentioned, it is stated in a note to Mr. Glen's edition of the Consolidated Orders, p. 155, that if the ailment be such as to afford reasonable ground for the attendance of a Medical man, and the applicant be unable to procure Medical aid for himself and family, the relieving officer should give the order, but not otherwise; and this, we think, is the correct view of the scope of a relieving officer's authority in cases of Medical relief."

RESPONSIBILITY IN ADMINISTERING CHLOROFORM.

[To the Editor of the Medical Times and Gazette.]

Sir,—Since you have been kind enough to give "T.B.K." a corner in your most useful journal, for the purpose of ascertaining the opinions of British practitioners upon the responsibility of administering chloroform without the assistance of another Surgeon, I, as a member of that pre-eminently respectable body, have great pleasure in giving him mine. My firm conviction, drawn from actual experience, is that any Surgeon, with a moderately good head upon his shoulders, may, without the aid of any other medical man, give chloroform (or superintend the administration of it), and, at the same time, perform with perfect safety any of the three operations mentioned in "T. B. K.'s" letter.

Where Medical men abound, and patients are rich, there can be no objection to the presence of a second Surgeon. In the country, however, I am quite sure chloroform would seldom be given, and many lives would in consequence be lost, were British practitioners to come to the conclusion that it is unjustifiable and blameworthy to administer chloroform without the help of another qualified man.

I am, &c.

James H. Aveling, M.D., M.R.C.S. Eng.

Sheffield, Aug. 4, 1857.

REPORTS OF SOCIETIES.

EPIDEMIOLOGICAL SOCIETY.

Dr. Snow, President, in the chair.

Dr. F. C. Webb read a paper

ON THE HISTORY OF GAOL FEVER IN ENGLAND.

The paper was introduced by some remarks on the impossibility of any class of society being subjected for a length of time to the causes of disease without final participation by the rest of the community in the results. The testimony of Lord Bacon was adduced to the frequent occurrence of disease taking its origin among prisoners "long, and close, and nastily kept." That such occurrences were not limited to his age is abundantly proved by extracts from the writings of Howard and Wild, illustrative of the state of prisons in the 18th and early part of the 19th centuries, and of the etiology of gaol fever. The appreciable causes which produced the disease, were, the crowding of human beings in wall dungeons, the withdrawal of a proper supply of air and water, the want of nourishment and exercise, inadequate clothing, the filth resulting from the absence of sewerage and necessaries, the operation of a sanguinary and ill-regulated penal code, and consequent mental depression. Reference was then made to various acts of legislation on the subject of gaol fever. The first outbreak of gaol disease of which we have an account took place in 1414, when the prisons of Newgate and Ludgate were severely visited. In 1522, an outbreak took place at the sessions held in the castle of Cambridge. This was followed in 1577 by the celebrated "Black Assize" at Oxford, when 510 persons were infected, and died from July 6th to

the 10th of October. A description of the symptoms of the disease was given from the accounts of Cogan and Stowe; the testimony of the former as to the exemption of women and children—until a late period the gaol distemper was popularly believed to affect men alone. That this in the 18th century was not founded on fact is proved by the testimony of Pringle and Lettsom. The "sickness of the house," in the Queen's Bench prison in 1579 was made the occasion of a petition to Queen Elizabeth. A similar outbreak to that at Oxford took place at Exeter in 1585. A scantiness of detail as to disease in prisons in the 17th century was accounted for by the difficulty of separating the prison element from the general run of cases, producing the pestilential fever so frequently rife during the civil wars; by the succession of epidemics of plague, and the frequency with which petechial fever was confounded with that disease; by the political excitement of the time, which probably interfered with the careful chronicling of such events. Gaol fever was found to prevail in the 18th century, whenever from any cause the gaols became crowded; as in 1730, from the unparalleled amount of crime in 1749, on the conclusion of the peace of Aix-la-Chapelle; and under similar circumstances in 1783. Allusions are made to the outbreak at Taunton and Exeter, in 1730; the state of the Irish prisons in 1740 and 1741; the disease in the gaols of Limerick and Tralee. The distemper was conveyed by some deserters who had been confined in prisons, to the Duke of Cumberland's army, at Inverness, in 1746. The author then gives Pringle's account of the epidemic. An outbreak occurred at the Old Bailey Sessions, in 1750, when curiously enough those to the right of the Lord Mayor generally escaped; the reason assigned being that a stream of air from the window directed the *materies morbi* to the other side of the court. A great benefit resulted from a ventilation constructed at Newgate, and worked by a machine in the manner of a windmill, in 1752. Seven of eleven workmen employed in erecting this ventilation contracted the fever, and by one of them a whole family was infected. Notice was then made of its conveyance from Exeter gaol to the town of Axminster, in 1750. It prevailed in 1761, among the prisoners of war at Porchester and Winchester; at Warwick and Bedford, in 1772—spreading, in the latter instance, to the town. Dr. Lettsom describes an outbreak in Long-lane, Aldersgate-street, the fever being brought there by a person who had contracted it in Newgate. Outbreaks occurred in Aylesbury gaol, in 1773—74; at Dublin, in 1775; at Hertford, in 1776. It subsided in the borough and county gaols until 1783, when part of the forces being disbanded, the prisons were again crowded, and fever reappeared. At Worcester it appeared in a malignant form, and was thence conveyed to Droitwich. The author proceeds to give Pringle's and Lind's testimony as to the influence of prisons as sources of infection to the army and navy. The disease was also carried by transported felons to the penal settlements in America. The fever which broke out amongst the Spanish prisoners, in 1780, appears to be distinguished from the English gaol distemper, by the general absence of eruption and head symptoms. Dr. Webb states his opinion of the nature of the true gaol distemper. It was typhus fever in its most characteristic form, identical with hospital and ship fever, and the pestilential fever of Sydenham. When suddenly fatal, which it frequently was, it corresponded with the "typhus siderans" of authors. Great light has been thrown by the subject on the etiology of typhus fever. It has entirely disappeared as a gaol disease. The author concluded the paper by a few remarks on the encouragement afforded by such a retrospect to philanthropists and promoters of sanitary reform.

A discussion followed, in which Dr. Seaton, Mr. Lord, Dr. Camps, Dr. Richardson, Mr. Hunt, Dr. Snow, and Dr. McWilliam, took part.

Leeds School of Medicine.—The distribution of prizes for the summer session took place on Friday, July 31st, when the following awards were made: — Midwifery. — Medal, Mr. James Braithwaite; certificates, Mr. Tacey, Mr. Isaac Newton—equal. Materia Medica,—Medal, Mr. John Foster; certificate, Mr. J. W. Irvine. Botany.—Medal, Mr. John Foster.

HARVEIAN SOCIETY.

At a late meeting of this Society, a communication was read by Mr. Haynes Walton on

A CASE OF DISORGANIZATION OF ONE OF THE EYES, PRODUCED BY DISLOCATION OF THE CRYSTALLINE LENS.

The patient was a thin girl, rather more than 10 years old, and very tall. As soon as she presented herself, it was observed by Mr. Walton that the left lens was dislocated forwards, and seated centrally, therefore directly in front of the pupil which it concealed; but it had not fallen to the bottom of the chamber of the eye, as is usual. The next time she was seen the lens was no longer in front, but had passed back through the pupil, swinging below its level by means of a portion of its ligament. This connexion, therefore, kept it in the central position, when dislocated anteriorly. It was also certain that the lens was in its capsule, and hence it was not opaque. The power of sight in the eye was very much impaired. It appeared that seven months ago the left eye became red and painful, and she was seen by a Surgeon, who observed that the lens was in the anterior chamber. After paroxysms of much anguish at irregular intervals for a few weeks, the pain subsided, but the inflammation never ceased. Mr. Walton recommended extraction, not for the purpose of saving the eye, but to prevent further deformity, and to obviate sympathetic irritation of the other eye.

At another meeting of the same Society, a paper was read by the President, Mr. Alexander Ure, on

EXCISION OF THE HEAD OF THE THIGH-BONE.

He considers that morbus coxarius commences, in the majority of instances, in the head of the thigh-bone; that its origin is inflammatory, and may be usually traced to a mechanical injury of the great trochanter; and that it occurs chiefly in young individuals whose system is under the influence of a scrofulous or tubercular taint. In those cases of the disease in which there is no prospect of a natural cure, and the constitutional powers of the patient are rapidly yielding to the effects of the disease—when successive collections of pus are forming in and around the joint—where the eroded articular cartilage causes acute pain on the slightest movement of the limb, and the patient lies in a helpless state, with the thigh bent on the pelvis and the leg bent on the thigh;—in such cases Mr. Ure conceives that the Surgeon is justified in removing the head and neck of the thigh-bone. In so doing, he merely imitates what nature occasionally accomplishes by the so-called process of interstitial absorption. It is true that the cotyloid cavity is often extensively diseased as well as the head of the femur, but most frequently the erosion is confined to the upper and back part of the cavity, and may be readily gouged out. Mr. Ure related a case in illustration of his remarks; it was that of a boy, aged 5 years, of a puny and emaciated appearance, who had been suffering from hip disease for the three preceding years. Over the right trochanter there was an unhealthy-looking ulcer of the size of a florin, which was continuous with a sinuous cavity of considerable magnitude, discharging blood with pus upon slight pressure. On examining the rectum, a round and smooth opening was detected communicating with the sinuous cavity just described. All other measures having failed, Mr. Ure determined to resort to excision of the head of the thigh-bone. He made a curvilinear incision about 3½ inches in length, skirting along the upper and posterior border of the great trochanter, keeping clear of the sciatic nerve. He then divided the soft parts over the head of the femur, which was found unattached to the cotyloid cavity, the capsular and the round ligament having been destroyed. Having isolated the head and neck of the bone, he cut through the latter at its base with bone-pliers, and withdrew the excised portion without difficulty. He finally gouged out some carious bone from the side of the trochanter, and also from the upper and back part of the rim of the acetabulum. The portion of bone removed was of a dark red colour, soft, porous, and thoroughly carious; the incrusting cartilage was, in a great measure, destroyed. The wound was closed by suture, and the thigh was kept slightly bent and abducted. In little more than six weeks after the operation, he could move about the ward on crutches, and bend the thigh with the pelvis fixed; the amount of shortening of the

limb was but trifling. In the act of progression, he just put the toes and then the heel to the ground. There were two small fistulous openings, from which a small quantity of matter issued in the course of a day. He had gained flesh and strength, his countenance had become cheerful, and his complexion greatly improved. The amendment which had followed the operation was, on the whole, very remarkable.

In the discussion which ensued, Dr. Ramsbotham, Mr. H. Smith, Mr. H. Walton, and Mr. Webster, took part.

PARLIAMENTARY INTELLIGENCE.

HOUSE OF LORDS.

The Land and Assessed Taxes, etc. (Scotland) Act Amendment Bill, the Lunatics' (Scotland) Bill, the Christ Church (West Hartlepool) Bill, and the Bankruptcy and Insolvency (Ireland) Bill were read a second time.

HOUSE OF COMMONS.

The following petitions have been presented since our last:—

By Mr. Campbell (3), in favour of the Poor-law Medical officers; by Sir J. Anderson, from the magistrates and town council of Inverkeithing, against the Lunatics' (Scotland) Bill, and the Police (Scotland) Bill.

NOXIOUS TRADES AND NUISANCES NEAR THE HOUSES OF PARLIAMENT.

Mr. Adderley said the First Commissioner of Works had stated on the previous day that by the Nuisances Removal Act there was no power to prevent the noxious trades to which allusion was then made being carried on; and he wished now to ask whether the effect of that Act was to repeal a previous one which gave ample power to suppress such nuisances?

Sir G. Grey said, by the Act to which the hon. gentleman referred power was given to the Secretary of State to direct information to be laid against persons carrying on noxious trades within the limits of the metropolis, but there was an Act passed last session which, after reciting that power, provided that no proceeding should be taken under the said Act against other nuisances than smoke, unless it should appear that the local authorities had failed to take proceedings for the suppression of such nuisances. He understood that the local authorities concerned in the nuisances to which the hon. gentleman called the attention of the First Commissioner of Works on the previous evening were the vestry of Lambeth, and the First Commissioner had brought the subject under their notice.

STATE OF THE THAMES.

Mr. Adderley asked the First Commissioner of Works whether he had any plan for the prevention of the pestilential stench which came every evening into every window on the river front of the Houses of Parliament; and whether there was any power to enforce better trapping of the drains, or a removal of the deposits of bones and other refuse on the opposite bank; or, whether legislation for the purpose was necessary; or, if there were no redress, whether any plan had been suggested by which the stench might be shut out of the Houses by closing up all the windows on the river side, and admitting air from another direction.

Sir B. Hall replied, that the drainage of the metropolis was not under the control of his department, but under that of the Metropolitan Board of Works. Since representations had been made to him as to the annoyance caused to members and officers of the House by the stench from the river he had been in communication with Mr. Goldsworthy Gurney, and he had this morning been informed by that gentleman that the stench came from the open mouths of the sewers, and that the whole neighbourhood was infected with it. Some hon. gentlemen imagined that the stench proceeded from beneath the floor of the House, but Mr. Gurney stated that it was entirely attributable to the abominable state of the sewers, and of the river Thames. There was, however, another cause of the nuisance. Mr. Gurney said in his report of to-day:—

"I am informed that the great Victoria sewer going up Parliament-street has lately broken in somewhere about Whitehall-yard, and that all the sewage which used to go through this large sewer was forced down the Bridge-street sewer; that lately, in order to empty Grosvenor basin, they passed the whole of the water and mud down this small sewer. The result was the 'blowing up,' as it is called, of the trapping at the mouth of the sewer. This fact has considerably augmented the pestilential state of the atmosphere of the river and the whole of the neighbourhood."

He (Sir B. Hall) had communicated these facts to the Metropolitan Board of Works, and he had every reason to believe that they would take steps to abate the nuisance. There was, however, another great source of annoyance in the offensive trades which were carried on upon the opposite bank of the river, and he wished to call the attention of the House to what took place in 1855, when a Bill was introduced with the object of suppressing nuisances in large towns. Under the provisions of the Bill for the Removal of Nuisances, which was referred to a select committee, and which was reported to that House on the 9th May, 1855, ample power was given to local authorities to suppress nuisances arising from trades emitting effluvia offensive or injurious to the health of the inhabitants of the neighbourhood. By section 28 local authorities might proceed against parties on complaint of any Medical officer or two legally qualified Medical practitioners; and by section 29, in case the parties proceeded against should object to the jurisdiction of justices in petty sessions, they might enter into recognizances and go to quarter sessions. There was also another clause, section 31, imposing a penalty on the local authorities if they did not proceeded within 14 days to abate the nuisance. The bone boilers and others opposed, and in committee of the whole House the clause relating to offensive trades was altered. The clause with reference to quarter sessions was struck out, and parties were compelled to take proceedings in the superior courts; the course of proceeding was rendered much more difficult, and the clause imposing a penalty on local authorities was rejected. The consequence was that the public were now completely in the hands of the local authorities.

MEDICAL NEWS.

Royal College of Surgeons.—The following gentlemen, having undergone the necessary examinations for the diploma, were admitted members of the College at the meeting of the Court of Examiners on July 31, 1857:—

Armstrong, David J., Brecon, South Wales.
Belcher, Paul, Burton-on-Trent.
Broadbent, William H., Longwood, Huddersfield.
Chambers, Charles, Denbigh, North Wales.
Foster, Michael, Huntingdon.
Goldsmith, John, West-end, Hambledon.
Heelis, Edward, Limehouse.
Hogg, Francis Roberts, Gower-street.
Lambert, Henry S., Croydon-common, Surrey.
Lee, Percy, Ramsgate.
Leeson, Robert Henry, London.
Roberts, Charles, Gloucester-terrace, Hyde-park.
Scott, Thomas Alexander Fraser, Aberdeen.
Skaife, Henry, Easingwold, Yorkshire.
Wise, Thomas, Kent.

Apothecaries' Hall.—Names of gentlemen who passed their examination in the Science and Practice of Medicine, and received Certificates to Practise, on July 30, 1857:—

Broadbent, Henry, Longwood, Huddersfield.
Carey, Francis Edward, Guernsey.
Hazard, Joseph, Litcham, Norfolk.
Lowe, John, Sleaford, Lincolnshire.
Roberts, Robert, Festiniog.
Rose, George Cowper, Melbourne.

University and King's College, Aberdeen, July 30, 1857.—The degree of M.D. was conferred on the following, after examinations on various branches of Medical science:—

Betts, George Harvey, Watford.
Cogan, Joseph, London.
Davidson, Samuel, Aberdeenshire.
Drage, Charles, Hatfield.
Hatherly, Narcissus Collins, Plymouth, R.N.
Hilton, William Richard, Whitehaven.
Leys, Robert, Ellon.
Norton, Algernon Charles Wodehouse, London.
Reeves, John Foster, London.
Stephen, Alexander, Aberdeenshire.
Wilson, John, Whitby.

APPOINTMENTS.

CLOUGH.—C. F. Clough, of Worksop, Notts, was elected on July 29, 1857, to the office of Resident Medical officer to the Eastern Dispensary, Great Alie-street, Whitechapel.

THE CONSUMPTION HOSPITAL IN VICTORIA PARK.—On Sunday morning an eloquent and highly effective sermon was preached by the Lord Bishop of London at the parish church of South Hackney, in aid of the funds of the Consumption Hospital in Victoria-park, Bethnal-green. A collection of nearly £70 was the result of the eloquent episcopal appeal.

APOTHECARIES' HALL, DUBLIN.—At the annual meeting of the General Council, held, pursuant to Act of Parliament, at the Hall on the 1st of August, Dr. M'Munn, Governor, in the chair, the following officers were elected for the ensuing year :—Governor, Charles Henry Leet, M.D. ; Deputy-Governor, William Madden, M.D. ; Directors and Examiners :—John Betty, M.D. ; Edward H. Bolland, M.D. ; Thomas Collins, M.R.C.S.E. ; Charles Holmes, M.D. ; John M'Munn, M.D. ; William Madden, jun., M.D. ; William D. Moore, A.B., M.B. ; Robert Mulock, M.D. ; Henry P. Nolan, M.D. ; Jerome O'Flaherty, L.R.C.S.I. ; George B. Owens, M.D. ; Christopher Shaw, M.R.C.S.E. ; John Shea, M.D. ; Secretary, Dr. Leet.

KING'S COLLEGE, LONDON.—On Friday afternoon the annual distribution of prizes to the pupils of this school and the schools in connexion with it took place in the hall of the College. The Right Rev. the Bishop of London took the chair. After a few brief remarks from his Lordship, the proceedings at once commenced with a recitation of pieces selected from the *chef-d'œuvres* of ancient and modern dramatic literature. Some of them, more especially the scenes from Molière's "L'Avare," Sheridan, and Shakspeare, were admirably rendered, and received with the most hearty applause, for all the numerous audience could appreciate the truth and point with which the varied delineations were performed. The scenes from Terence, Euripides, and Aristophanes passed off rather more flatly, though the recitations in their way were faultless. This portion of the proceedings was considerably enlivened by a series of glees, trios, and part songs, which were sung with the utmost good taste and feeling. At the conclusion the names of the scholars for 1857 were announced, and the principal prizes were awarded as follows :—Council prize for Latin essay, to Mr. Charles Taylor ; Council prize for Greek Iambics, to Mr. Owen Orton ; prize for Latin verse, given by the Principal, to Mr. J. M. Maidlow; ditto, for English verse by the Head Master, to Mr. G. T. A. Hind ; and the prizes given by the Literary Union for an English Essay, to Mr. B. Jackson, and Mr. A. Manos. The Right Rev. Chairman then proceeded to distribute a very large assortment of standard works, splendidly bound, among the successful competitors in the divisions of Classics, Hebrew, French, German, Mathematics, Euclid, Engineering, Arithmetic, Landscape, Geometrical, and Model Drawing.

UNIVERSITY COLLEGE, LONDON.—On Friday afternoon the annual distribution of prizes to the pupils in the Junior school of this institution took place; F. J. Wood, LL.D., member of the Senate, in the chair. The pupils seemed to have been exceedingly industrious during the past year, as no less than 190 prizes and distinctions were awarded among all the classes, viz. :—To the Greek Class, 8 ; Latin ditto, 23 ; French, 31 ; German, 6 ; Hebrew, 1 ; Social Science, 4 ; English, 13 ; Geography, 12 ; History, 13 ; Mathematics, 19 ; Mechanics, 6 ; Arithmetic, 19 ; Bookkeeping, 4 ; Chemistry, 4 ; Writing, 17 ; Drawing, 12 ; Fencing, 2 ; and Gymnastics, 6. A large number of the friends and relatives were present to witness the distribution, and the whole proceedings seemed to be watched with the greatest interest.

EXCISION OF THE ENTIRE SCAPULA has been performed lately with success by Dr. Crawford of Ayr. Very little blood was lost. The patient was under the influence of chloroform for fifty-five minutes.

SURGERY IN CHINA.—The following is an extract from a letter of the Times Correspondent, who relates the late events in China :—"To-day I visited the wounded men. All the severe cases are on board the Hercules. With the exception of two cases—one where the poor creature has the back of his head shot away, and lingers still with half a brain—the men are all doing well. The main deck of the Hercules might be envied as a Hospital ward by the surgeons of Guy's or Bartholomew's. Many of the wounds are of the most frightful description. They are all caused either by cannon shot or jagged pieces of iron. It is wonderful to find the men so cheerful under the pressure of such wounds. I heard no moan or sob all the time I was in the ship. Yet there was one poor fellow who was even then having extracted from his shoulder small bits of a comrade's scull, which had been smashed and scattered in splinters by a round shot. I talked much to Jenkins, the seaman of Keppel's galley, whose life Prince Victor saved by timely twisting his handkerchief over the stump. Jenkins is a very intelligent fellow ; he looks calmly at his stump—perhaps he thinks of England and Greenwich, and strikes a balance in his mind. Upon the whole I must report that up to this present time no wounded men could possibly be better cared for than those of this Chinese squadron."

MILITIA SURGEONS.—The *Dublin Evening Post*, speaking of militia surgeons, says—"This very useful class of the public servants are subject to extreme ill treatment, and it is not the less unjust that it is according to the letter of the law. For their professional attendance on the members of the staff and their families, and for providing medicine, they receive the wretched pittance of something about £25 per annum—a sum which would scarcely pay the cab hire of such of those gentlemen as live in large towns, where the different members of their charge may reside very far apart."

VITAL STATISTICS OF LONDON.

Week ending Saturday, August 1, 1857.

BIRTHS.

Births of Boys, 843 ; Girls, 830 ; Total, 1673.
Average of 10 corresponding weeks, 1847-56, 1482.

DEATHS.

	Males.	Females.	Total.
Deaths during the week	632	606	1238
Average of the ten years 1847-56	...	...	1138
Average corrected to increased population	...	...	1252
Corrected average for corresponding week in ten years 1847-56	762·6	719·7	1482·3
Deaths of people above 90	...	...	3
Deaths in 13 General Hospitals	51	27	78

DEATHS REGISTERED DURING THE WEEK.

CAUSES OF DEATH.	In the Week ending Saturday, Aug. 1, 1857. Deaths of Persons. AT ALL AGES.	Under 20 Years of Age.	At 20 and under 40 Years of Age.	At 40 and under 60 Years of Age.	At 60 and under 80 Years of Age.	At 80 Years of Age and Upwards.	Averages of Temperature and Deaths in 10 Weeks.
Mean Temperature	Mean temp. ° 65·6						° 62·4
ALL CAUSES	1238	746	150	137	164	41	1138·3
SPECIFIED CAUSES	1232	741	149	137	164	41	1133·1
DISEASES:—							
1. Zymotic Class	473	419	18	7	23	6	459·7
2. Dropsy, Cancer, and others of uncertain seat	44	10	8	11	15	..	39·9
3. Tubercular Class	235	103	79	44	7	2	182·6
4. Of Brain, Nerves, etc. ..	126	65	12	16	22	11	109·7
5. Of Heart, etc.	34	1	8	13	11	1	34·6
6. Of Respiratory Organs ..	68	28	3	13	21	3	77·6
7. Of Digestive Organs ..	73	29	7	14	23	..	65·1
8. Of Kidneys, etc.	16	1	2	6	6	1	11·0
9. Of Uterus; viz. — Puerperal Disease, etc. ..	6	1	3	2	..	..	7·6
10. Of Joints, Bones; viz.— Rheumatism, etc. ..	7	2	1	4	..	..	7·8
11. Of Skin, etc.	3	2	1	..	..	..	1·7
12. Malformations	2	2	..	..	..	..	2·5
13. Debility from Premature Birth, etc.	20	20	..	..	..	..	31·6
14. Atrophy	44	35	..	1	8	..	36·7
15. Age	42	..	..	..	25	17	32·6
16. Sudden	3	2	1	..	..	..	4·4
17. Violence, Privation, etc. ..	36	21	6	6	3	1	29·1
CAUSES NOT SPECIFIED.. ..	6	5	1	..	..	..	5·3

DEATHS IN SUB-DISTRICTS FROM EPIDEMICS.

	Population. 1851.	Measles.	Scarlatina	Hooping-Cough.	Diarrhœa.	Cholera.	Typhus.
West	376,427	..	5	5	50	4	3
North....	490,396	3	2	7	60	7	7
Central ..	393,256	7	3	6	51	2	4
East	485,522	8	6	10	69	4	10
South	616,635	3	4	12	72	7	7
Total..	2,362,236	1	20	40	302	24	31

METEOROLOGY.

From Observations at the Greenwich Observatory.

Mean height of barometer	29·870 in.
Mean temperature	65·6
Highest point of thermometer	83·4
Lowest point of thermometer	49·5
Mean dew-point temperature	56·1
General direction of wind	S.W.
Whole amount of rain in the week	0·60
Amount of horizontal movement of air in the week ...	660 miles

BOOKS RECEIVED.

Metropolitan Workhouses and their Inmates. London. Longman and Co. 1857.

Archiv des Vereins für gemeinschaftliche Arbeiten zur Förderung der Wissenschaftliche Heilkunde. III. Band. 3 Heft. Göttingen. 1857.

Quarterly Return of the Marriages, Births, and Deaths registered in the Divisions, Counties, and Districts of England.

Eighth Report of the District, Criminal, and Private Lunatic Asylums in Ireland, with Appendices.

The Comet and Cometic Electricity. By Struve Ærnest. Edinburgh. 1857.

The Southern Journal of the Medical and Physical Sciences. May, 1857. Tennessee.

Proceedings of the Royal Society. Vol. VIII. Nos. 24 and 25.

Vaccine; ses Conséquences funestes. Par le Dr. G. C. Villette de Terzé. Paris. 1857.

The Land of Silence and the Land of Darkness. By the Rev. B. G. Johns. London. Longman and Co. 1857.

Inquiry into the Opinions of the Commercial Classes of Great Britain on the Suez Ship Canal. By Ferdinand de Lesseps. London. Weale. 1857

Board of Works for the Holborn District. Reports by Septimus Gibbon, A.B., M.B., Officer of Health.

Annual Report of the Royal Lunatic Asylum of Aberdeen. 1857.

TO CORRESPONDENTS.

THE ROYAL FREE HOSPITAL.

TO THE EDITOR OF THE MEDICAL TIMES AND GAZETTE.

SIR,—As my retirement from the Surgical staff of the Royal Free Hospital last autumn has been attributed to notions which had no foundation in fact, I pray you to give me the opportunity of publishing through your columns, that in taking that step I was simply actuated by a sense of public duty. Firmly believing that the management of that Hospital was not in accordance with the only principles consistent with due regard for the interests of mankind and of science, I felt bound to tender my resignation. I have simply to add that if the authorities of the Hospital desire any explanation with reference to this letter, I am prepared to furnish it.

I am, &c. JOSEPH SAMPSON GAMGEE.

Upper Woburn-place, August 3, 1857.

Mr. W. Hewitt will find a good deal of information on the mortality of rural and town populations in the Registrar-General's third report.

F.R.C.S. Eng. (by examination).—It is not our practice to insert marriages in the *Medical Times and Gazette.*

M.D. will receive a private communication.

Pro bono Publico.—We cannot give any definite information upon the subject referred to, but we believe that the Bill will not be pressed further during the present session.

INDISCRIMINATE USE OF CHLOROFORM.

TO THE EDITOR OF THE MEDICAL TIMES AND GAZETTE.

SIR,—I shall be obliged if you will spare me space in your valuable Journal for the few following remarks.

The use of chloroform except in capital operations (those formidable deeds requiring to be done in the formidable emergencies of Surgery), is likely to be for some time a moot point with the Profession. Experience has hardly inscribed her first page on the subject, yet what she has written is intelligible. In midwifery and the minor duties of the Surgeon, such as extracting a tooth, excising a flesh wen, or opening a deep abscess, where chloroform has been used, the proportion of fatal results in some of these instances is sufficient to put us on our guard against the thoughtless and unsanctioned employment of this powerful life-suspender, and too often life-extinguisher; and in this common province of practice, it would appear better not to use this wonderful agent. It is true, however, that there may be a case for the mere removal of a tooth in which a morbid sensibility is such a characteristic that the operation cannot be accomplished in the patient's normal state; and yet in such case before we resort to chloroform we are bound to hold a consultation, which should consist of those in part who have taken their first lessons in the experience and knowledge of those vital conditions which allow its use, and not of those individuals who have only read and heard of that marvellous state of the nervous system which is entitled "Anæsthesia!" Cases may be got up and reported, where gentlemen on their private responsibility have succeeded with chloroform, but such success may generally be put down to the account of good luck or fortune, and not to the score of an experimental and deep practical tact. I am, &c.

J. ASPRAY, L.A.C.E.

A. B. Birmingham.—The case against Miss Madeline Smith having been declared "not proven," it is hardly worth while to discuss some of the minor points which were brought forward at the trial. As to the attempt to prove that arsenic is, or ever was, used as a cosmetic, is an entire fallacy; arsenic having never, so far as we know, been employed for that purpose. The evidence to the contrary is far from trustworthy. Even washing the hands in water containing arsenic suspended or dissolved produces the very reverse effect to whitening of the skin, for it irritates and abrades it; a fact well known to those who are in the habit of handling anatomical preparations preserved by means of arsenical solutions.

Philanthropos.—If a candidate should be unsuccessful in his first application for admission into the Royal Medical Benevolent College, the votes recorded in his favour are carried on to his account at the next election. It is quite contrary to our rule to advocate the claims of any particular candidate.

The letter of our Paris Correspondent arrived too late for insertion this week.

BACON'S CASE—ARSENIC USED IN HARDENING IRON.

TO THE EDITOR OF THE MEDICAL TIMES AND GAZETTE.

SIR,—In conversation with an intelligent machinist to-day, I am told that arsenious acid with prussiate of potass, in the proportions of two parts of the former and one of the latter, is often used in solution to harden the metal work of mills, machines, &c. It appears that Dr. Taylor was not aware how arsenic is used for the purpose mentioned by Bacon's apprentice. It is thus,—the hot metal is dipped into the solution, and allowed to remain until it is cold, the deposit from the mixture remaining on the surface. An incident is mentioned by Bacon's brother's wife worthy of remark:—Bacon removed a bottle from the house, from which during life his poor mother had been dosed; in Sir Theodosius Boughton's case Donellan (with motives of similar interest in the Baronet's death), drew the attention of Lady Boughton to his officious interference in rinsing with water the phial from which the unhappy youth had taken his lethal does of laurel water. I am, &c.

West Haddon, August 5, 1857. G. HARDAY.

COMMUNICATIONS have been received from—
Professor HUXLEY; Professor SYME; Mr. HENRY THOMPSON; Dr. FARR; Dr. DIAMOND; Mr. TEALE; Mr. ROWDON; Dr. HOOD; Dr. SNOW; Dr. LANKESTER; Dr. J. H. AVELING; PRO BONO PUBLICO; Mr. C. F. CLOUGH; Dr. ELMHIRST; Mr. G. HARDAY; Mr. J. ASPRAY; Dr. FYFE; Mr. J. FERGUSON; Mr. THEODORE LENT; Mr. NUGENT; Dr. P. H. WILLIAMS; Mr. MANT; Dr. COGHLAN; Dr. J. CAMPBELL; Mr. W. H. KING; Mr. BLACK; Dr. ARMSTRONG; Mr. R. DAVEY; Mr. J. GOODLAD; Mr. WORSLEY; Mr. MACNAMARA; Mr. J. C. SLOAN; Mr. C. CHUBB; Mr. GUNN; Mr. PRESTON; Dr. A. SIMPSON; Dr. BLAKE; Mr. J. BURTON; Mr. HARRISON; Mr. C. WILLIAMS; W. B.; ALPHA; Mr. R. W. WATKINS; Mr. ACKERLEY; W. W, LUKYN; Dr. H. COOPER ROSE.

APPOINTMENTS FOR THE WEEK.

8. *Saturday (this day).*

Operations at St. Bartholomew's, 1½ p.m.; St. Thomas's, 1 p.m. Westminster, 1 p.m.; King's, 2 p.m.; Charing Cross, 1 p.m.

ROYAL BOTANICAL SOCIETY, 3½ p.m. *Anniversary.*

10. *Monday.*

Operations at the Royal Free Hospital, 1 p.m.; Metropolitan Free Hospital, 2 p.m.; Orthopædic Hospital, 3 p.m.

11. *Tuesday.*

Operations at Guy's, 1 p.m.

12. *Wednesday.*

Operations at University College Hospital, 2 p.m.; St. Mary's, 1 p.m.; Orthopædic Hospital, 3 p.m.

13. *Thursday.*

Operations at St. George's, 1 p.m.; Middlesex, 12½ p.m.; Central London Ophthalmic, 1 p.m.; London, 1½ p.m.

14. *Friday.*

Operations at the Moorfields Ophthalmic, 10 a.m; Westminster Ophthalmic, 1½ p.m.

EXPECTED OPERATIONS.

At the Metropolitan Free Hospital, on Monday, Mr. Hutchinson has a case, in which a congenital tumour of considerable size, in front of the sternum, is to be removed.

ORIGINAL LECTURES.

CLINICAL LECTURES
ON
STRICTURE OF THE URETHRA.

By JOHN ADAMS,
Surgeon to the London Hospital.

GENTLEMEN,—I avail myself of the opportunity now afforded by a few cases of stricture of the urethra to make a few remarks on this subject.

The cases to which I now direct your attention were admitted in consequence of retention of urine. In all, the retention has been relieved without any other surgical interference than the introduction of the catheter. The first is one of severe strictures of the urethra cured by the passing of the catheter and other appropriate treatment. The second is a case in which Mr. Syme's operation was performed at another Hospital, and is interesting inasmuch as it is complicated with fistula in perinæo.

The first is the case of a man, aged 54, who had been admitted two years ago in consequence of retention from stricture. He was then relieved, after considerable difficulty, by the catheter, passed after a warm bath. He returned here in November, and after some unsuccessful attempts, an elastic catheter was introduced, and his retention was thus relieved. He attributes his stricture to a severe attack of gonorrhœa, which he contracted twenty years ago. After the treatment, which I shall describe to you, this man has left the Hospital so far cured as to his stricture that if he pursues the advice given him, he is not likely to trouble us again.

I dare say you are aware that there are different descriptions of stricture. Thus nosologists admit of three varieties of this complaint, namely, spasmodic, inflammatory, and permanent strictures. The first arises from a contraction of the muscular apparatus which encircles the membranous portion of the urethra, and may be illustrated in a case where retention of urine occurs in a gouty subject, and in a patient who, after drinking acid wines, etc., finds his stream of water diminishing in size, and becomes the subject of retention of urine. The second form of the disease may be readily observed in severe gonorrhœa, when the stream of urine is first reduced to the size of a thread, and afterwards stops altogether; and the third you will understand by referring to the case under consideration, and which is of most common occurrence. I may say of the first, that when the catheter is employed for the relief of retention, you should select rather a small elastic catheter, and passing it gently down to the seat of spasm, maintain your pressure for a short time, and the spasm will often yield. Failing this, and you will sometimes necessarily fail, you must order leeches to the perinæum, a warm bath, and a dose of castor oil, with laudanum. These means will seldom fail to relieve the retention, and the patient will continue well for some time, but always liable, under similar circumstances, to a repetition of the attack. Much relief will be afforded in the after-treatment of the disease by the exhibition of liq. potassæ and tincture of hyoscyamus. If the inflammatory stricture is attended with retention of urine, a very similar treatment must be pursued. I may, however, be permitted to make the following remarks, which are applicable to retention of urine under both these conditions:—

You are called to a case of retention of urine, which has existed perhaps twenty-four hours; you find the bladder enormously distended, and the efforts to micturate frequent and most urgent; you trace the history of the case, and you come to the conclusion that the symptoms have been those of inflammatory stricture from severe gonorrhœa; and you believe that the retention results from the swollen state of the mucous membrane of the urethra, accompanied, probably, with spasm of the muscles surrounding the membranous part of the canal. Now you are not in such a case to waste any time in the employment of leeches, warm baths, etc.; but you must at once pass a catheter: a moderate-sized, or rather small elastic catheter, must be introduced carefully into the bladder, and the water drawn off. But if the case is not severe, and the retention not urgent, you may modify your practice. Put twelve leeches to the perinæum, place the patient in a warm bath, give him an ounce of castor oil and thirty drops of laudanum on it, and ten to one but he will pass his water either in the bath or when the oil operates. Indeed, I am of opinion that most cases of retention, except those arising from enlarged prostate, are capable of relief in this way, even though depending on permanent stricture; and I remember one of our House-Surgeons telling me, some time ago, that he generally succeeded in such cases in this manner without the catheter, if no attempts had been made with this instrument. Even after the unsuccessful attempts at catheterization, these means will not unfrequently succeed. I have repeatedly witnessed such a result, even where false passages have been made by the forcible efforts to pass a catheter.

But I wish to direct your attention to permanent stricture of the urethra. The most common situation of this form of stricture has been variously stated to be anterior to the bulb in the spongy portion of the canal, or at the membranous part. In the case under consideration the stricture was anterior to the bulb. Of the nature of stricture I may remark that it consists, in its simplest form, of a thickening of the mucous membrane to a greater or less extent of surface, to which may be added a thickened state of the submucous fibrous tissue, and superadded to this there may be a deposition into the cells of the corpus spongiosum urethra, even accompanied by a thickening of the skin of the penis to such an extent as to encroach upon the canal. In the case before us my opinion is, that the stricture is due to the thickening of the mucous membrane and submucous tissue, giving rise to a peculiar feeling of elasticity of the part, in consequence of which the catheter becomes firmly grasped when its point enters the stricture. The practice I have pursued in this case is exactly that which is in common use, and the principles of which I will explain. The object is to dilate the strictured part of the urethra, and the cure of the stricture is said to be by dilatation.

The subject requires some explanation. You cannot with impunity stretch living parts as you can those which are dead; for by endeavouring to do so you endanger their vitality, and a sudden overstretching of a canal is apt to do a great deal of mischief; but if you proceed cautiously you may do a great deal without injury: thus, in the employment of Mr. Wakley's instruments you may often succeed, at one sitting, in passing a fair-sized catheter over a small sound first introduced even through a very tight stricture. In the ordinary plan of treatment by the catheter, in most inveterate strictures, the dilatation of the strictured part is accomplished by promoting the absorption of the superadded tissue by the pressure exerted by means of the catheter. Thus in a severe stricture you proceed in the following manner:—you find that you cannot get your catheter through the stricture or even into it; you therefore pass it down to the stricture and press firmly against it; it yields a little, and you get the patient to keep it in that position for some time—say for three or four hours—and then withdraw the instrument; in the course of three days, and after the use of the hip-bath, you try again, you find you have gained a little ground; and after two or three trials at intervals of three days you find that the catheter passes suddenly into the bladder.

Gentlemen, do not be ashamed at being foiled in passing the catheter. I have seen many lives sacrificed to the false pride of the Surgeon: all museums will testify to this; and I well remember repeated post-mortems, consequent on injury the result of the Surgeon's violence, in his efforts to save his credit as an invariably successful catheterizer. It is false pride; and the practice is essentially bad in principle, for, if the catheter is passed with violence, it often cannot be borne, even if it be in the right direction; but false passages, and other inconveniences, are apt to result from the violent attempts to pass the catheter. I cannot speak too strongly on this subject. Now, it will often happen that, in a very severe stricture, the instrument will readily pass at the second trial, when no apparent impression was made on the stricture at the first. You should bear in mind, also, that a stricture may be limited in its extent, as is the case in what are termed annular strictures, or there may be two or more strictures occupying various parts of the canal, or a very large portion of the urethra may be contracted to a very slender canal; and this condition is apt to result from a thickening of the mucous membrane, and the submucous fibrous tissue. The principle of treatment is the same in all, and it is to that I shall now direct attention. However much Surgeons may differ in ideas

of the nature, situation, and even treatment of stricture, yet no man ventures to affirm that he can cure a stricture of the permanent class without the use of the catheter. You will have remarked that, in the case alluded to, the catheter No. 4 was first attempted to be passed unsuccessfully, and that, after a few unsuccessful attempts in the manner already noted, it slipped suddenly into the bladder.

Now here a most important point is gained, and when you have attained this you may fairly conclude that the after-treatment is all plain and straightforward. But you will, nevertheless, meet with difficulties sometimes of rather a serious nature. Having got the catheter in, I directed it to be secured with tapes, and on no account to be removed until my next visit. I also ordered that a full opiate should be given every night if requisite, and especially if any shivering should occur. On my next visit, at an interval of three days, I found the catheter still in the passage, but instead of being firmly grasped by the urethra, as on the first introduction, I found that it was moved with the greatest facility, and it was covered with a copious mucous secretion. I therefore at once replaced it with an instrument of the next size, and gave similar directions as to its retention, and as to opiates, etc. So at my next visit I passed a larger instrument, and so on, after some time, and proceeding in the same cautious method I was at last able to pass about a No. 8 catheter; and here I stopped, finding that the urethra did not readily dilate further. You will often find such to be the case, and therefore any attempts at further dilatation would not only be of no use, but would be positively injurious. Be content with what you have done, as an urethra capable of receiving readily a No. 8 catheter will be abundantly serviceable if you can maintain its calibre at that point; and to this your attention must now be directed. Therefore a No. 8 was passed daily in this case by the attending dresser, and when all difficulty was at an end the patient was taught to pass a catheter himself; and, being directed to use it every other day, or twice a week, he was dismissed with what I conceive to be as perfect a cure as the nature of his case admits.

I advise you to pursue this practice, and you will be successful. Be cautious in your first attempts to pass the catheter. Never mind being foiled at first. The best Surgeons in the world have failed; they must fail occasionally; but their judgment is displayed better in proceeding cautiously and avoiding violence, than in being determined not to be foiled, and using such an amount of force as leads, by a series of injuries, to the eventual destruction of the patient. I remember a private patient of a late Surgeon of this Hospital who told me that he had obtained more relief from an advertising quack than from his regular Surgeon; for he said, "You Surgeons won't have patience; you use too much violence; whereas the quack whom I consulted was exceedingly cautious in his use of instruments, and if he found himself foiled, he immediately put me on twelve leeches to the perinæum, and gave me a warm bath in his own house; and after this he succeeded in getting in an elastic catheter easily enough." Well, this will show you the importance of a little caution in the use of instruments.

Let us now consider how a catheter acts in curing stricture. The first effect of passing a catheter through a stricture will be to stretch the urethra or dilate the canal, and often this is all that is necessary; but, too often, you will find that in the course of two days, when you attempt to re-introduce the catheter, you have the same work to do over again. If, on the contrary, you tie the catheter in, a very different state of things invariably happens; and the parts are all loosened around, in consequence of the absorption or removal of the contracting medium, and dilatation is the consequence. I believe that dilatation may occur in three ways in the cure of stricture,—first, it may happen from a simple stretching of parts; secondly, it may result from absorption of tissue, in consequence of the pressure of the catheter against the stricture; and, thirdly, it may arise from a softening or, to use a common expression, a melting down by suppuration of the indurated tissues, as a consequence of the pressure exerted on the part, and the residence of the catheter in the urethra, which, of course, is felt as a foreign body.

You must expect to meet with difficulties even in pursuing the simple practice here laid down. Thus, a patient will tell you that he cannot keep the catheter in. If this be so, your tactics must vary; but, before you make any change in your treatment, insist firmly that your plan must be carried out, and you will frequently overcome the antipathy of your patient to the use of the catheter as recommended. Give him opium, and this will often reconcile him to the inconvenience. A regular febrile attack will frequently dispose you to relinquish your treatment, and to remove the catheter. I do not know why it is, but there is no doubt that shivering and all other febrile symptoms are apt to follow or accompany irritation of the urinary organs. Still my advice to you is, not to be disconcerted by a slight febrile attack; do not alter your plan, but pursue it steadily even with this complication: give opium again, and often the fever will subside, and then you can go on uninterruptedly, as in the case before us. I will not say that there are not cases in which it may be desirable to suspend your treatment; but I would say, do not let trifles divert you from persevering in the use of the catheter as now recommended. Of course you must expect cases in which it is necessary wholly to desist, at any rate for a time, and you may be compelled to leech the perinæum, use warm baths, and give opium largely; when, after having allayed all local and constitutional irritation, you can again resort to the means indicated. But the obstacles against this mode of treatment which may be deemed insurmountable I shall consider at a future time. Before I conclude my remarks on the subject of catheterisation, I must insist on the importance of avoiding undue stretching of the urethra by instruments larger than necessary, and which are always injurious rather than beneficial; and let me again mention the fact, that often after passing only a very small instrument you will find to your surprise that you can readily succeed in introducing a catheter of far greater size than the one first employed, and which was introduced with the greatest difficulty. I suspect that the stricture in such cases is annular or of very limited extent, and that the passing of the catheter has broken it down at once. It will certainly happen occasionally, and I think it is in such cases as those just referred to that a single introduction of the catheter will really effect a cure, and that it may possibly never be requisite again to resort to the use of instruments; but such a desideratum is certainly most unusual, and in most cases, however much they appear to have been benefited by the catheter, it is most desirable occasionally, even at the intervals of ten or twelve months, to pass the catheter. With respect to the curability of stricture, I cannot too much insist upon the fact that few cases of stricture can ever be said to be cured, so that they shall give no further trouble or inconvenience. It is a fatal error to suppose that strictures are often cured. You will generally find on inquiry that a slow, although perhaps almost imperceptible, diminution in the size of the stream of urine goes on for a considerable time, and unless you resort again to the introduction of the catheter your patient will at the end of a year be as bad as he was before, and you will have to go over the same ground again; and hence the importance of teaching a patient to pass the catheter himself occasionally.

There is something in the nature of the newly deposited substance which constitutes stricture that has a most remarkable tendency to contract, and there are no medicinal means capable of preventing it; although it is undoubtedly accelerated and increased by anything calculated to irritate the urinary organs. Inflammation of the urethra, as in a case of severe gonorrhœa, will most certainly lead to this unfortunate result; so also stone in the bladder will give rise to the same condition,—nay, even irritation in the kidney, as from a small renal calculus, will favour the same: and hence the importance of avoiding all causes of irritation, as free drinking, etc. Nothing can be considered entirely prophylactic of this disease, save the occasional introduction of the catheter. I have, however, in more than one instance seen cases where what may be considered a spontaneous cure of stricture has occurred, if one can believe the account of the case as furnished by the patient; but this has happened where there has been a total abstinence from stimuli of every description, and the patient has led a most temperate and regular life. This must, however, be considered as an exception to a general rule; and it is not unlikely that the stricture was originally of the spasmodic rather than the permanent variety.

I do not wish you to imagine that the practice I have advised is new. It is as old as the hills, and was the only one pursued when I was a student here; and I can only justify myself in directing your attention to it, because, when new remedies are advocated, the old ones are sometimes wholly put aside. Of course it will happen that some patients will not submit to the treatment which I have recommended you to

pursue in permanent stricture. Indeed, a man may be so circumstanced, that he cannot lay up and pursue the regimen prescribed; and there are others who cannot really bear the catheter to be retained in the bladder. Hence some modification in the treatment becomes requisite; and the occasional passing of the catheter or the bougie, at intervals of two or three days, is the only substitute for that more efficacious system that I have endeavoured to inculcate. Indeed, in private practice this is very frequently the only method you can employ: patients will not submit to the regimen enjoined, and therefore will only pursue that which may be called the palliative plan of treatment. But even here I would advise the same precautions as in the treatment by the catheter, in respect to the use and management of instruments, the same precaution against attempting too much at once, the same precaution against overstretching the urethra by too large instruments; and, lastly, the same precautions in instructing your patient after his urethra has been fairly dilated to pass the catheter himself occasionally.

It must, however, be borne in mind that, after all, something must depend upon the skilful manipulation of the Surgeon, and certainly all are not equally endowed with manual skill; but, keeping in view the anatomy of the urethra, and the rules ordinarily laid down for the passing of the catheter, I have no fear but that your cases will be brought to a successful issue, with ordinary care and prudence.

With respect to the case in which Syme's operation was performed, I shall not say much. An operation gets a name from the Surgeon who first employs it; nevertheless it does not follow that all Surgeons adopt precisely the same mode of operating, or are equally cautious in the selection of their cases, and in the after-treatment of their cases; and it is possible that in the case now the subject of remark there may have been peculiarities which led to the resulting perinæal fistula. I therefore forbear making any lengthened remarks on the case, and shall content myself with stating that in this instance the stricture still continues, that a false passage exists, and that there is a fistula in perinæo after the operation, which has been performed, as it is said, after Mr. Syme's method. Do not imagine that I wish from this instance to disparage Syme's operation. I only wish to show you what may happen after its performance by a Surgeon of known skill and experience.

LECTURES ON GENERAL NATURAL HISTORY.

By THOMAS H. HUXLEY, F.R.S.
Lecturer on General Natural History at the Government School of Mines, and Fullerian Professor of Physiology, Royal Institution.

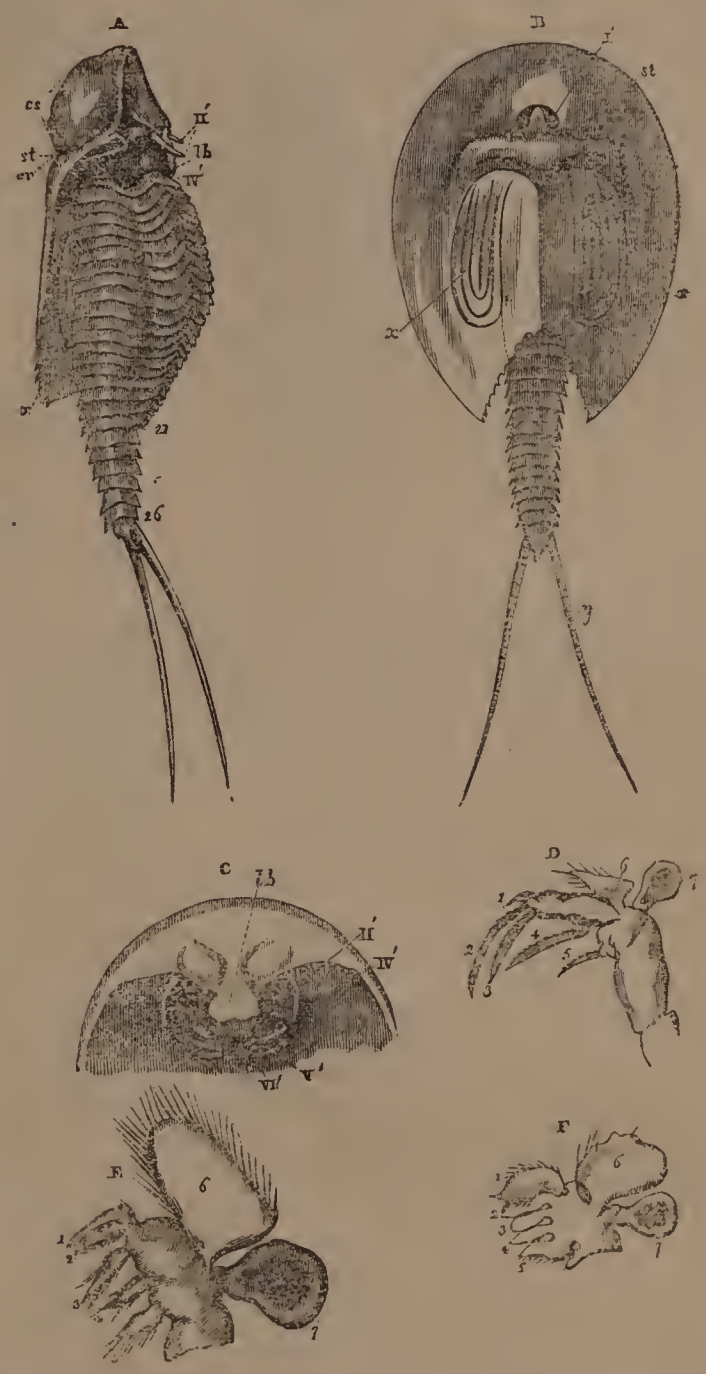
LECTURE XII.

The Branchiopoda.—The genera *Nebalia*, *Apus*, *Branchipus*, *Limnetis*, *Daphnia*, and their allies are usually divided into two orders, the *Phyllopoda* and the *Cladocera*, but these pass into one another so gradually, and have so many structural peculiarities in common, that the subdivision of the group of *Branchiopoda* appears to me to be a step of doubtful propriety. Closely resembling the lower *Podophthalmia*, such as *Mysis*, in some respects, these Crustaceans are invariably distinguished from them by the possession of a greater or less number of somites than twenty; *Nebalia*, which most nearly approximates the higher *Crustacea*, having twenty-two somites. Futhermore the thoracic and abdominal appendages of the *Branchiopoda* are in almost all cases more or less foliaceous, resembling in many respects the anterior maxillipede of an *Astacus*, and being constructed on essentially the same plan.

I have selected *Apus Glacialis* (a) as the type of this division, (fig. 1.) The animal presents an elongated vermiform body, terminated by two long multiarticulate setose styles, and covered anteriorly by a great shield-like carapace, deeply excavated behind. The posterior three-fifths of the carapace are free, and merely overlap the segments of the body; the anterior portion, on the contrary, is united with, and forms the tergal surface of the corresponding region of the body; the free portion of the carapace shelves away laterally from a median ridge, on each side of which a curious mark, as of a coiled vessel, is visible. Where the free joins the fixed portion, the ridge is abruptly terminated by a transverse depression. A little distance in front of this is another deeper transverse groove, close to which, in the middle line, are the two reniform compound eyes, converging towards one another anteriorly.

(a) I am indebted to Dr. J. E. Gray, of the British Museum, for the opportunity of examining this and some other rare and interesting *Crustacea*.

Fig. 1.



Apus.—A. Lateral view, with the right half of the carapace cut away. B. Dorsal view. C. Anterior part of the body, seen from below. D, one of the anterior, E, one of the middle, and F, one of the posterior limbs, without their coxopodites. *x*. Convoluted sinus in the carapace. *lb*. Labrum. 1, 2, 3, 4. Endopodite. 6. Exopodite. 7. Epipodite or branchia.

The under surface of the anterior division of the carapace presents a flattened, semilunar, subfrontal, expanded area, behind which its inferior wall slopes upwards on all sides into the posterior division, thus forming a wide chamber, in which the anterior thoracico-abdominal segments are lodged. In the middle line the subfrontal plate sends back a long and wide process, moveably articulated with it, and rounded at its free end—the labrum, above and behind which the mouth and gnathites are situated. Behind these I counted twenty-six spinulose thoracico-abdominal segments; the anterior twenty of which bear the swimming feet, while the twenty-sixth, much larger than the others, is produced into an incurved point posteriorly, and carries the anus and the terminal setæ.

The compound eyes, as has been said, are seated upon the upper surface of the anterior division of the carapace. On the under surface, just above and behind the posterior boundary of the subfrontal area, and on each side of the labrum, is a delicate jointed filament—the antennule. Behind this, Zaddach found in some specimens of *Apus cancriformis*, a second very small filament, the rudiment of the antenna, which in the larva is so large and important an organ; but I have observed nothing of the kind in this species. On each side of the labrum is a large, convex, strong, toothed mandible, and the aperture of the mouth is bounded posteriorly by a profoundly divided organ, which I am inclined to regard with Savigny, as the *metastoma* or *lingua*. Succeeding this are two pairs of small maxillæ, the second pair being foliaceous, and almost rudimentary. Behind these appendages a cervical fold marks off the boundary between the head and the thorax, and at the same time corresponds with the commencement of the free portion of the carapace. Whether the carapace is also to a certain extent attached to the first thoracic somite, as Grube states, (b) or whether it is entirely cephalic, as Milne-Edwards considers, is a point upon which I have been able to come to no very clear determination; indeed, it is a question rather for the embryologist than the anatomist.

Of the twenty pedigerous segments, the first eleven have each one pair of appendages, but behind the eleventh, each segment gives attachment to a gradually increasing number of limbs, so that the twentieth carries five or six pairs. Altogether I counted twenty-eight appendages to these nine posterior thoracic segments, which, added to the eleven preceding, makes thirty-nine appendages in all. While the anterior eleven segments must be regarded as each single somites, the nature of the posterior ones is open to doubt; they may be single terga, whose sterna and appendages have multiplied, or they may each represent a number of coalesced terga.

Each appendage consists of three divisions—an endopodite, exopodite, and epipodite, supported on a protopodite or basal division. The latter consists of three joints—a coxopodite produced internally into a strongly setose prominence (not figured in D. E. F.), a basipodite, and an ischiopodite, the latter elongated internally into a lanceolate process, and bearing on its outer side two appendages, of which the proximal—the epipodite or branchia—is pyriform and vesicular in specimens preserved in spirit. The distal, exopodite, is a large flat plate, provided with long setæ on its margin.

The endopodite consists of four joints, the two proximal ones being much the longer, and, like the penultimate, giving off internally a long process. Finally, the terminal joint is claw-like and serrated on its concave edge.

The average form of these appendages is represented by (E) taken from the middle of the series; anteriorly the limbs become more slender and leg-like as (D); posteriorly, on the other hand, they are completely foliaceous, as (F); but the same elements are recognisable throughout.

The eleventh pair of appendages is the only one which departs, in any important respect, from the rest of the series, each of these being modified so as to serve as a receptacle for the ova. To this end the joints of the endopodite are greatly expanded, and converted into a hemispherical bowl; the exopodite, metamorposed into another such bowl, shuts down over the endopodite, and into the spherical box thus formed the ova are conducted by means of the oviduct which opens into it.

On the dorsal surface of each side of the terminal segment of the body there is a tubercle produced into five spines anteriorly, and carrying posteriorly a long and delicate setigerous filament. Zaddach supposes this to be the aperture of the male organ, but I can find no aperture whatsoever in it, and I believe that it is imperforate.

The alimentary canal of *Apus* is very simple, consisting of a vertically ascending œsophagus, which bends back into the small stomach, situated immediately behind the compound eyes, in the middle of the region bounded by the two transverse furrows on the dorsum of the carapace; from the hinder end of the stomach the straight intestine passes back to the anus, which is seated beneath the terminal segment. The liver consists of cæca, which branch off from the stomach and lie (as in *Phyllosoma*) on each side of it in the cephalostegite.

Zaddach describes a pair of glands which he regards as salivary, placed above, and opening into, the stomach itself, like the salivary glands of the Scorpion.

The heart occupies the tergal region of the eleven anterior thoracic somites, presenting as many chambers, with lateral apertures.

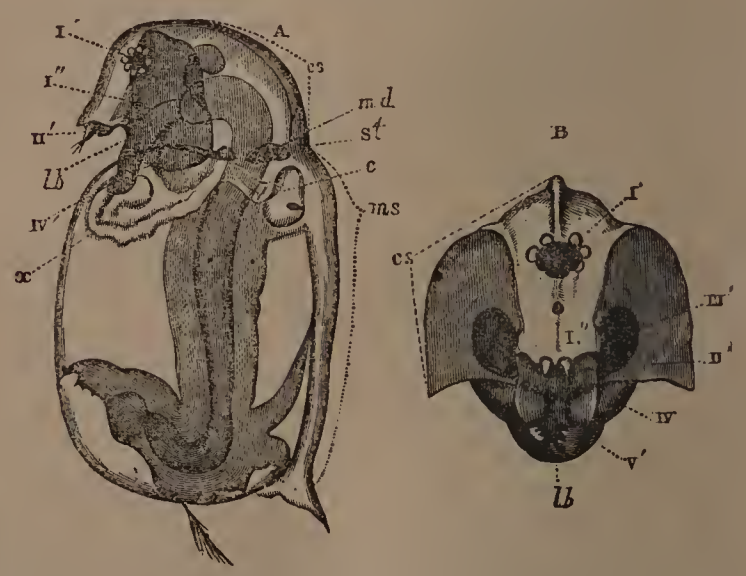
The nervous system consists of a quadrate cerebral mass, placed immediately under the compound eyes, and giving off large nerves to them and to the remains of the single eye of the larva, which lies in front of their anterior extremities. Commissures pass downwards and backwards on either side of the œsophagus, and connect the cerebrum with a chain of numerous ganglia placed on the median line of the ventral surface. It is worthy of remark, that the antennary and antennulary nerves are given off from the commissures far behind the cerebral mass.

The female generative apparatus is alone certainly known in this genus. The ova are developed in the cæcal branches of two long tubes, situated one on each side of the body, and opening, as above described, in the eleventh pair of appendages. Zaddach conceives that a system of reticulated tubules placed in the abdomen, and opening by small apertures in its last segment, are the male organ; but his view has not been generally adopted and, as I have stated above, in *Apus glacialis*, the tubercles on which the male genital apertures are supposed to exist are imperforate. It is only certain that if *Apus* is diœcious, no males have yet been seen, often as the genus has been investigated by excellent observers.

The young *Apus* (*cancriformis*), when just hatched, presents, according to Zaddach, a form widely different from that of the parent. The body is oval, indistinctly divided into a few segments, and entirely destitute of appendages, except a shorter anterior uniramous, and a longer posterior biramous pair of oar-like organs, situated at the anterior extremity on either side of the single median eye. The carapace is rudimentary, and there are no caudal filaments. The little animal now casts its skin, and the mandibles, which are provided with long palps, make their appearance. With successive ecdyses the young assumes more and more the form of the adult, and acquires the pair of compound eyes; the anterior pair of appendages being converted into the antennules, the posterior disappearing or remaining as rudimentary antennæ, and the mandibular palps also vanishing.

Singular and highly instructive modifications are exhibited by the other typical genera of the *Branchiopoda*, *Nebalia*, *Branchipus*, or *Cheirocephalus*, *Limnetis*, and *Daphnia*.

Fig. 2.



Daphnia.—A. Side view; the appendages not figured. B. Front view of head. *c. s.* Cephalostegite. *m. s.* Omostegite. *c.* Heart. *st.* Cervical suture. *lb.* Labrum. I'. Compound eye. I''. Simple eye.

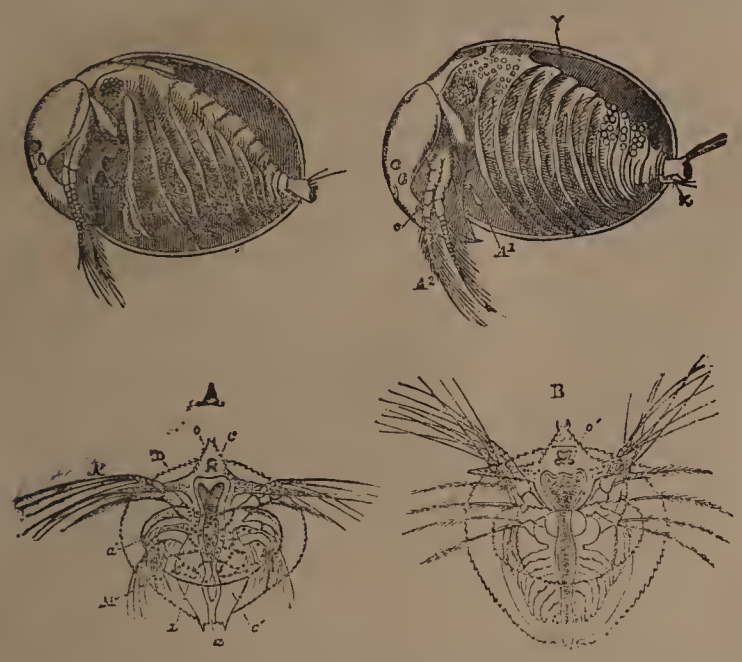
In *Daphnia* and its allies (fig. 2), the thoracic members are reduced to six, five, or even four pairs, the abdomen is rudimentary, the heart is short, and the carapace presents a posterior division, obviously developed from the anterior thoracic somites, whose lateral halves are so deflexed as to resemble a bivalve shell, into which the hinder part of the body can be withdrawn. The anterior division of the carapace in *Daphnia* has, on the contrary, the same structure as the corresponding part of the carapace of *Apus*, but the compound eyes, fused into a single mass, are situated at the anterior extremity of the

(b) Bemerkungen über die Phyllopoden, p. 81.

head, rather than on its upper surface, and the single eye is quite distinct, and far posterior to them. The antennules are small and rudimentary, and placed at the sides of the produced frontal "beak," but the antennæ are very large, and constitute the principal locomotive organs. The posterior maxillæ are obsolete. (c)

Limnetis Estheria, etc., present a *Daphnia*-like carapace, though more completely bivalve, combined with the numerous segments of the body of the typical Phyllopods (fig. 3).

Fig. 3.



Limnetis brachyurus (after Grube).—The upper left-hand figure is the male, the other the female; one valve of the carapace in each case being removed. A^1. Antennules. A^2. Antennæ. A Young larva. B. The same further advanced. *c*. Head. *o*. Eye. D. Carapace. *c'*. Body. A'. Antennæ. M. Mandibles. *a'*. Great plate, which covers the mouth.

Nebalia has a large caridoid carapace, provided with a moveable rostrum, like that of *Squilla* or *Rhynchocynetes*, and arising entirely from the head, which is remarkable for its very slight sternal flexure, for its large and pedunculated eyes, and well-developed antennules, antennæ, mandibles, and two pair of maxillæ, the anterior of which ends in a long palp.

Branchipus, finally, developes no carapace either from the head or the thorax, the segments of the latter being entirely free, while the former is similar in shape to that of an Insect, or Edriopthalmous Crustacean, and carries two large stalked eyes, two antennules (singularly modified in the male), two antennæ, a pair of mandibles, and two pair of maxillæ.

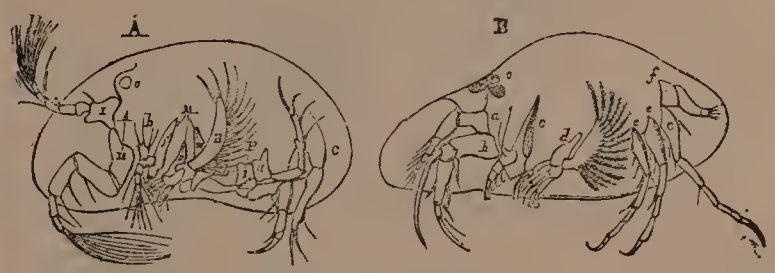
The thoracic appendages are constructed upon the same plan in all *Branchiopoda*, but become greatly modified in the few-limbed forms, such as *Daphnia*.

The phenomena of "Agamogenesis," or reproduction without sexual congress, are exhibited in a most remarkable manner by many *Branchiopoda*. Joly met with more males than females in *Isaura*. According to Grube they are found in about equal proportions in *Limnetis*. But the male *Branchipi* and *Daphniæ* are fewer than the females; and male *Artemiæ* are excessively rare; while in the genera *Apus*, *Limnadia*, and *Nebalia* (?) females only have as yet been found. But notwithstanding the rarity or absence of the males in many of these genera, reproduction proceeds with great rapidity. The ova appear to be capable of development without fecundation; and isolated females of the genus *Daphnia* will thus go on producing broods for generation after generation, without any known limit.

Under certain circumstances, however, bodies of a different nature from these "agamic ova," as they have been well termed by Mr. Lubbock, (d) are developed within the ovary, whose substance acquires an accumulation of strongly refracting granules at one spot, and forms a dark mass, the so-called "ephippial ovum." When fully formed, two of these ova pass into the dorsal chamber of the carapace, whose walls have, in the meantime, become altered. The outer and inner layers of the integument acquire a peculiar structure, a brown colour, and a more firm consistency, over a large saddle-like area. When the next moult takes place, these altered portions of the integument, constituting the "ephippium," are cast off, together with the rest of the carapace, which soon disappears, and then the ephippium is left as a sort of double-walled spring box (the spring being formed by the original dorsal junction of the two halves of the carapace), in which the ephippial ova are enclosed. The ephippium sinks to the bottom, and sooner or later its contents give rise to young *Daphniæ*.

Mr. Lubbock's careful researches show that the development of the ephippial ova may commence without the influence of the male, and they seem to indicate that these ova may even be fully formed and laid without the male influence. On the other hand, there appears, under ordinary circumstances, to be a certain relation between the complete development of ephippial ova and the presence of males; and, as yet, no ephippia produced by virgin females have been directly observed to produce young. The question, therefore, seems to stand thus, at present: the agamic ova may *certainly* be produced, and give rise to embryos, without impregnation; the ephippial ova may *certainly* be produced without impregnation; but whether impregnation is or is not absolutely necessary for their further development, there is at present no evidence to show.

Fig. 4.



A. *Cypris*.—A. I. II. Antennules and Antennæ. M. I. II. III. Mandibles and maxillæ. P. I. II. Thoracic members. *c*. Caudal extremity. *b*. Mandibular palp. *o*. Eye. B. Maxillary appendage.
B. *Cythere*.—*o*. Eye. *a*. Antennule. *b*. Antenna. *c*. Mandible. *d*. Maxilla. *e. e. e*. Thoracic members. *f*. Caudal extremity. (After Zenker.)

The Ostracoda.—This is a small order, containing several genera of both recent and fossil *Crustacea*, for the most part of very small size, and distinguished by their hard, calcified, and completely bivalve shell, provided with a distinct hinge. The valves of this shell consist of the lateral moieties of the carapace; they are commonly unequal and unsymmetrical, and present a peculiar ornamentation. The *Ostracoda* are also remarkable for the extremely rudimentary condition of their abdomen, and for the paucity of their thoracic appendages, which, instead of being foliaceous, are strong and subcylindrical, like the ambulatory legs of the higher *Crustacea*.

The cephalic flexure is as well marked as in the highest *Crustacea*, so that the eye, obscurely divided, and median in *Cypris* (A), but double and lateral in *Cythere* (B), is situated in the upper part of the anterior region of the body. The antennules and antennæ, attached to their respective somites, whose sterna constitute the anterior boundary of the body, are similar in form and function to ambulatory limbs. The ducts of a peculiar gland open, according to Zenker, (e) at the end of the strong spine with which the antenna of *Cythere* is provided. The labrum is considerable, and the mandibles are strong, and possess a well-developed palpus. The first maxilla is provided with a large foliaceous setose appendage (epipodite?) The second maxilla seems to be absent in *Cythere*, unless it is represented by the first of the three pairs of ambulatory limbs present in this genus. In *Cypris*, which possess a second pair of maxillæ, there are only two pairs of ambulatory limbs. The apertures of the reproductive organs, provided in the male with a wonderfully complex, horny, copulatory apparatus (described with great minuteness by Zenker), are situated between the last pair of thoracic members and the large caudal hooks.

(c) Claus (Das Genus Cyclops, Wiegm. Archiv., 1857), speaks of a dorsal sucker, by which some species of *Lynceus*, *Daphnia*, *Sida*, *Evadne*, and *Polyphemus*, are able temporarily to fix themselves. He adopts *Leuckart's* idea, that this is the homologue of the suckers of the larval cirripede. We shall see, however, that this view is incorrect.

(d) Proceedings of the Royal Society, Jan. 29, 1857.

(e) Monographie der Ostracoden. Wiegmanns Archiv, 1854. I have chiefly followed this careful investigator in the text.

Strong adductor muscular bundles pass from one valve of the carapace to the other, and leave impressions discernible from without, whose form and arrangement are particularly worthy of note in a systematic point of view.

The alimentary canal of the *Ostracoda* is provided anteriorly with an apparatus of hard parts, resembling in many respects the gastric armature of the *Isopoda*, and gives origin to two hepatic cæca. No trace of a heart has been yet detected in these creatures, and, according to Zenker, they have no blood corpuscles. The nervous system is difficult to make out; but the same observer found in *Cythere lutea* a large cerebral ganglion in front of the mouth, whence filaments passed to an ophthalmic ganglionic mass, and to the antennary organs. A double ganglion behind the mouth supplies the gnathites; three ganglia situated in the thorax send filaments to its appendages, and a terminal ganglion supplies the caudal appendage and genitalia. In the female the ovaries lie in the valves of the carapace, and terminate in oviducts which open in front of the caudal appendages by distinct apertures. Immediately anterior to them are the apertures of two horny canals, called vaginæ by Zenker, each of which is continued into a long convoluted transparent tube, and eventually terminates in a large vesicle, the spermatheca, into which the spermatozoa of the male are received.

The testes are elongated cæca in *Cypris*, globular vesicles in *Cythere*, and communicate with a long vas deferens, which opens into the copulatory apparatus. In *Cypris* a very singular cylindrical mucous gland is connected with the vas deferens; but perhaps the most remarkable peculiarity about the genital apparatus in the male consists in the size of the spermatozoa, which in *Cypris ovum* are, according to Zenker, more than three times as long as the body! They possess a spirally-wound coat, and are totally deprived of motility.

The affinities of the *Ostracoda* are not easily to be determined; but while the bivalve never-moulted carapace, the small number of locomotive appendages, the rudimentary condition of the abdomen, and the caudal spines, indicate, on the one hand, a relationship with such forms as *Limnetis*, *Daphnia*, and *Evadne*, among the *Branchiopoda*,—some of these characters, the absence of a heart, and the large size of the male copulatory organ, on the other hand, suggest an affinity with the *Cirripedia*. The spermatheca is somewhat similar to that figured and described by Leydig in his account of *Argulus*. It is a structure of comparatively rare occurrence in *Crustacea*, being found only in a few other *Epizoa* (?) and in the *Brachyura*.

(To be continued.)

ORIGINAL COMMUNICATIONS.

A CASE OF EXPECTORATION OF HYDATID MEMBRANES.

By ARTHUR LEARED, L.R.C.P., M.R.I.A. Etc.

Physician to the Great Northern Hospital, and Lecturer on Materia Medica at the Grosvenor-place School of Medicine.

The following is an abstract of notes of the case, taken in October, 1854:—

A. M., forty years of age, is of moderate stature, but delicate formation. She has, nevertheless, enjoyed excellent health, and is of a healthy family. Eleven years ago she had scarlatina, and that is the only illness she remembers to have had besides the present one. The latter she attributes entirely to the following accident.

About eleven months ago she lived in London, in the situation of lady's maid. One evening, when seated at tea, her mistress suddenly called her. She rose precipitately, and this caused a morsel of bread, which was at the time in her mouth, "to go the wrong way," as she herself expressed it. A violent fit of coughing ensued, on recovering from which she was sent out on some business. Soon afterwards, being in an omnibus, she was seized with a choking sensation in the larynx, and so troublesome an itching along the spine that she was obliged to rub it strongly. During this time she had very little cough.

She got home about five hours from the occurrence of the accident. Severe vomiting now ensued. During the night she slept well, but observed next day that she had perspired copiously, and that the left side of her face and right arm were full of white blotches, "like blisters without water," the surrounding skin being of a deep red colour. A Surgeon who was called to see her pronounced these to be nettle-rash. She also suffered from pains in the limbs. Troublesome cough now came on, and she believes that from this cause she never slept during the five succeeding nights. The expectoration became thick, brown, and adhesive, and she had pain at the left side. During this time she was partially confined to bed. In about ten days from the accident she had recovered sufficiently to remove to Norfolk. She remained there about five months, and during all the time, especially at night, was much troubled with laryngeal irritation, cough, and copious expectoration. On returning to town, in July last, she became my patient. About four months ago she first remarked that she expectorated something that closely resembled orange jelly. Since then, the same thing has occasionally occurred to her. On about four occasions, also, she expectorated white substances, which alarmed her greatly, as "they rolled up like great worms." She observed a little blood with the sputa twice. There is no marked febrile disturbance; yet she has lost flesh considerably. Her cough, which is peculiar, consisting of three efforts, distresses rather by constancy than severity. She complains of soreness of the left side of the thorax, and of "a pricking and shooting sensation" in the right side.

Very careful examinations, made on the 24th and 31st of October, yielded the same results. On the left side, dulness on percussion from beneath a line encircling the chest, and touching the lower angles of the scapulæ. This dulness was very marked posteriorly, somewhat less so at the side, and still more modified anteriorly. The respiratory murmur was found to be impaired in a manner precisely corresponding to the dullness. Bronchial respiration was not noticeable; but there was a well-marked inspiratory valve-like, or clicking sound, and it was most audible about the lower margin of the axillary space.

The physical signs on the right side were normal.

It is undesirable to give the treatment in detail. It consisted, at first, of cod-liver oil, and other tonics, with expectorants and sedatives. A blister was kept open on the affected side. Iodide of potassium, with the external use of iodine, was subsequently employed. I found none of these remedies effective. The cough and orange-jelly-like expectoration and that of white membranes continued. The latter was sometimes so abundant, that she assured me nearly a saucerful of membranes were brought up on one occasion. It may here be mentioned, that although relief was experienced on expectorating the larger membranes, dyspnœa was not a prominent symptom of the case.

At length, in February, 1855, fourteen months from the commencement of her illness, and about seven since the membranous expectoration was first noticed, I determined on trying the effect of mercury. Salivation was effected, and gently kept up for about ten days. I had the satisfaction to find that this treatment promised well almost immediately. The cough and expectoration became notably diminished, and subsequently her general health appeared to have improved. Soon afterwards, in consequence of having gone to the East, I lost sight of my patient. I had, however, an opportunity of again seeing and examining her on the 21st January last. She then informed me that she had expectorated the "white skins" once only since her salivation, and the orange-jelly-like expectoration not at all. Nevertheless, some bronchial irritation long continued, and for this she remained under treatment. It consisted mainly of sedatives and tonics. At the date last referred to she was free from all chest symptoms, and appeared in perfect health. The only physical signs remaining were slight dulness on percussion, and a low sound, having a friction-sound character, in the position in which the valve-like sound was previously observed. I have very recently ascertained that her health continues excellent. It is now nearly four years since the occurrence of the accident.

It must, I presume, be accorded that the entrance of a foreign body into the air-passages was in this case the exciting cause of the subsequent symptoms. It would appear that this body very soon passed from the larynx into the left lung. Distal irritation, viz. vomiting, itching along the spine, and eruption on the skin resulted. Inflammation of the lung itself

appears to have been next in succession, and after some time the membranous expectoration was noticed. Thus far the production of the membranes seems connected with direct irritation of the bronchi.

Very numerous examinations of the sputa yielded the following results:—

They were at times simply muco-purulent, but masses of some consistence and of the size of a small filbert, often occurred in them. These masses were found under the microscope to consist of pus corpuscles, intermixed with numerous cells many times larger, and more doubtfully of blood corpuscles, interwoven in a fibrillated stroma.

The microscope proved that the bright yellow sputa, appropriately compared by the patient to orange jelly, consisted of delicate membranes massed in folds, and studded with irregularly shaped patches, of a bright orange colour. The white membranes invariably presented a laminated structure. They consisted of thin pellucid layers, that could be separated by careful manipulation. When several of these layers were superposed and adherent, a compound membrane was formed, of a pearly white appearance, possessing both tenacity and elasticity. Some of these membranes were of considerable size. One which I preserved measures two inches square, when spread out. As the shape of the membranes was usually that of tubular rolls, which, in the act of expectoration, would be liable to distortion, their rolling up subsequently was easily explained. Attached to the concave surfaces of the white membranes some of the thin yellow kind were occasionally found.

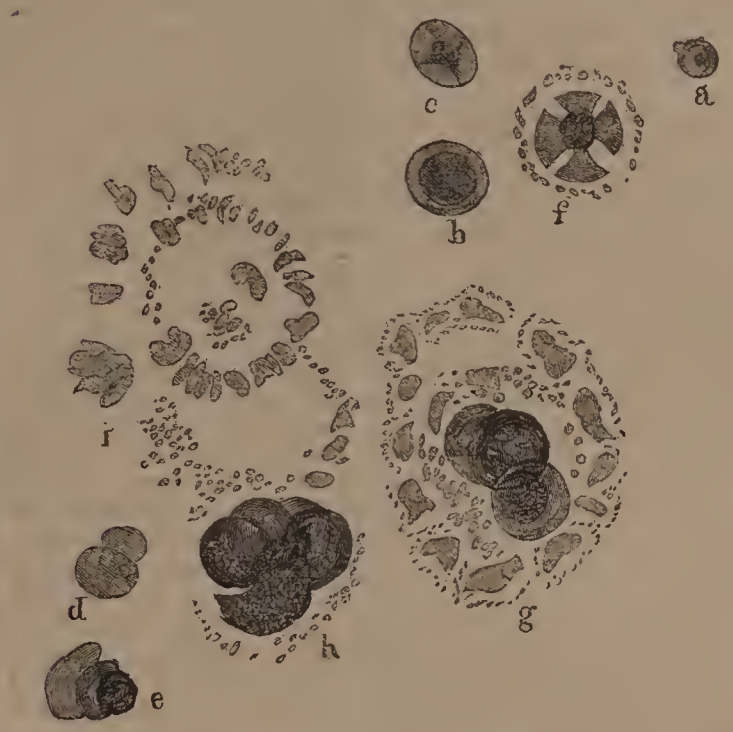
In connexion with the white membranes, I discovered some remarkable microscopic appearances. They are well represented in the engravings by Mr. Orrin Smith, from drawings made with the camera and a magnifying power equal to 105 diameters. My attention was first arrested by numerous combinations of round or ovoid granules, in a manner suggestive of vegetable organisation, as represented in fig. 1. The granules varied in size from less than that of a

Fig. 1.

blood corpuscle to many times larger. Rugged looking masses of still larger size were occasionally mixed with them, and both granules and masses varied in colour from a yellowish to a dark brown. Occasionally, in the same field with them, the bright yellow material previously spoken of might be observed. The action of test liquids on all these bodies was very slight. The alkalies gave no result; neither did the mineral acids, with the exception of slight disintegration of the granular bodies. Iodine with acid had no effect on them; neither had boiling them in ether or alcohol. Oil globules were also seen in connexion with the membranes.

It appeared probable that the granular bodies, the brown and the bright yellow masses, had a common origin; this origin I at length discovered. Dotting the convex portions of some of the white membranes, I noticed certain dark brown isolated spots, the largest being visible to the naked eye. Under the microscope these spots were found to consist of bodies and fragments of bodies variously grouped, and presenting great varieties in size and arrangement. The bodies varied from the size of a blood corpuscle to more than ten times the diameter. They possessed no proper nuclei, but the appearance of one body partly or wholly within the other was very constant. (Fig. 2, *a*, *b*, *c*, *d*, *h*, *g*.) In some in-

Fig. 2.



stances several were thus involved together. (*g*) In other cases one body seemed to grow from the other. (*d*) In a few the arrangement of several flattened bodies one upon the other, with a successive diminution of diameter, gave the appearance of a pyramid. (*c*) Usually in proportion to the size, and as might be supposed of the age of the bodies, there was evidence of decadence. In some instances in which one body appeared within the other mere traces of splitting were seen. (*e*) These traces commonly extended through the external body at right angles to it, stopping short at the internal body. In others the separation of the fragments was such as to afford a very exact resemblance to the Maltese cross. (*f*) On the other hand, in some cases detached fragments of an inner body were to be seen enclosed by an unbroken external body. It was most remarkable that in almost every instance of external rupture the fragments of the body were acted upon by a peculiar force. This had the effect of arranging them in rings around the parent bodies (as seen in *g*); and as the fragments appeared to have undergone further subdivision, and to have been acted on by a similar force, a second ring with a second clear space was not unfrequently seen surrounding the first ring. In many cases, too, the central rings were either almost or entirely void. (*i*) It was plain that the branched arrangement of the granular bodies was produced by the operation of the force described; also that they and the larger masses were derived from the rupture of the round or ovoid bodies.

I have used the indefinite term, body, in this description for the following reasons:—The term cell was inappropriate on account of the absence of distinct cell-walls. The external body appeared homogeneous as far as the commencement of the contained body, which, being marked by a deeper shade of colour, appeared itself homogeneous. The bodies might be supposed to have been concretions in concentric layers, but there was a general evidence of organization which the term concretion does not express. From what source were the bodies derived? Notwithstanding that they were so slightly acted upon by any test fluids, it appears to me more than probable that they originated in effused blood. The invariable position of the bodies that were in the early stages, on the outside of the membranes, or the part of them that had been in contact with the tissues of the patient, favours the

idea. The proneness of the colouring matter of the blood to alter to various shades of yellow under certain circumstances, as well as the blood-cells themselves to coalesce, is well known. Now, in a few instances in the case before us, something like the union of single pairs of blood-cells was observed. The coalition of many blood-cells would account for the size of some of the bodies. But whether the bodies thus formed became (as frequently appeared to be the case) possessed of inherent powers of growth, or even of reproduction, I shall not offer an opinion. It is certain that the bodies passed through definite changes, apparently closely akin to those known to be the result of the organic force.

As no similar phenomena, so far as I am aware, have been previously described, and as they appeared to me to possess much interest, I have given this detailed description of them.

The membranes themselves remain to be considered. Were they debris of acephalocysts, or fibrinous exudations from the bronchi? In favour of the latter are to be considered, the direct bronchial irritation, which may reasonably be supposed to have produced an exudative tendency. The plugs which the patient expectorated were held together by fibrillation, which points to a like tendency. The membranes were in cylindrical, not spindle-shaped rolls, like portions of ordinary hydatid cysts. The apparent good effects of the mercurial treatment, as might have been expected, in case of exudation. No traces of echinococci were found. Lastly, hydatids in the lungs are of extremely rare occurrence, and there were no symptoms to indicate the liver as their original seat. On the other hand, some of the membranes were of a size to preclude the idea of their having been formed in the air-passages, unless in the trachea or a greatly dilated bronchus. But the minute structure of the membranes, especially the fineness and evenness of their lamination, appeared to me decisive as to their acephalocyst origin. Under the higher powers of the microscope they presented also a peculiar granular structure, which Mr. Quekett, who was kind enough to examine them, believes to be peculiar to the hydatid cyst. Dr. Bristowe, who has given considerable attention to the subject, also believes the membranes to be those of hydatids.

It would be useless to speculate upon the singular coincidence between the accident to the patient and the occurrence of the parasites. Independently of the interest attached to the appearances first described, the case affords a remarkable instance of the value of the microscope as a means of diagnosis.

48, Finsbury-square, July 25, 1857.

ON THE LARGE GROWTH OF THE THYMUS GLAND

AS A CAUSE, REAL OR SUPPOSED, OF THE SUDDEN DEATH OF INFANTS.

By WILLIAM PRETTY, M.R.C.S. etc.

The few remarks which I have to offer to the notice of the Fellows of the North London Medical Society upon this subject are intended rather to elicit than to impart information; they will, however, perhaps show that more attention on the part of Medical men is required, and more accurate knowledge needed, as to the average size and weight of the thymus gland at different periods of age; so that we may be enabled to form some data upon which a more certain and a more satisfactory conclusion can be arrived at, as to how far size and weight of this gland may be the cause of illness, or of sudden death in children.

Wilson's Vade Mecum states that the weight of the thymus gland at birth is 240 grains (or four drachms)—after birth it continues to enlarge until the expiration of the first year, when it ceases to grow, and gradually diminishes, until at puberty it has almost disappeared. I believe that more extended observation will show that the growth and disappearance of this gland are much more variable than are here described. My amount of information will be but very small. Our acute and intelligent coroner for Middlesex readily admits that a largely developed thymus gland is a cause of sudden death to some children, and Medical testimony to this effect is offered and received, in the absence of ascertainable causes to account for the death. This same gentleman also tells us that a vast number of deaths among infants is to be ascribed to suffocation (the overlaid children, as they were formerly considered); and that the bodies of children thus asphyxiated present no uniform appearances, either external or internal, which indubitably indicate the cause of death, and that the testimony of persons first finding these dead children, as to position, coverings, &c., is, from alarm and agitation, at such a time not to be depended upon.

However true deaths among children may be from suffocation, deaths from a large thymus gland suddenly occurring may, I think, admit of some doubt. It does appear somewhat singular and inexplicable that an organ like the thymus gland, which gradually increases in size after birth for a period of one year, and that during its growth it has been productive of no inconvenience, no symptoms of disease, should quite unexpectedly become the cause of sudden death, as is commonly supposed from pressure effected upon the trachea, the nerves, or the blood-vessels of the neck. I will not say that in certain positions of the head and neck, with a very large gland, this cannot take place; but we do want accurate information to satisfy us that it does so. My doubts were first excited by a few words which were uttered by Professor Owen, at the College of Surgeons, some two years ago. While conversing with that gentleman, I spoke of having removed a thymus gland, which in weight exceeded any one in the College museum, dissected by Sir Astley Cooper, and which gland I had considered from its great size to have been the cause of sudden death to the child. His remark which followed was as near as I can recollect in these words: "I do not see how a compressible substance like the thymus gland could be the cause of sudden death." I do not give this as his deliberate opinion, occurring, as it did, in casual conversation; but of his dissent from my then entertained view of the question I have no doubt whatever.

I have heard a little about a complaint which has been named Thymic Asthma, but practically I am unacquainted with it; and if it really exist, it is, I apprehend, of rather rare occurrence. I can, however, conceive that some amount of pressure upon the trachea and blood-vessels, from a largely developed thymus gland, confined as it is in its situation behind the muscles on the anterior part of the neck, and beneath the sternum, may produce some difficulty of breathing, greater or less, according to the position of the head and neck, and in cases where fits of dyspnœa can be fairly ascribed to this cause, I am willing to accede to a belief that a death more or less sudden may ensue. We have no just grounds for believing that any sudden engorgement of this gland from blood, or its own peculiar secretion, can take place and produce serious or fatal evils. I will briefly relate what has fallen lately under my own inspection.

Case 1.—A child previously healthy and well nourished was found dead by its mother's side early in the morning. The mother's custom was to sleep with the child upon her arm, a very common practice among nursing mothers; upon awaking in the morning, she found the child away from her side, and dead; and if her evidence was worth anything, she stated that the child was not covered either heavily or closely with the bed-clothes, and she was unable to account for its death. The late Mr. Goodhart, who had been called to this case, was unable to give any other evidence than an opinion that the child died from suffocation. The jury, under the direction of the coroner, gave a verdict to that effect.

After the inquest had been held I obtained permission to make a post-mortem examination. I found no satisfactory cause for the child's death. The cerebral substance was unusually soft and bloodless, and the lungs were congested in a moderate degree only. The examination must have been made about four or five days after death. The child was ten months old, and, judging from the size of the thymus gland, its weight must have been five drachms or more.

A post-mortem examination is now pretty generally ordered in such cases, and had there been an examination prior to the holding of the inquest, it is very probable that the large thymus gland would have been considered as the cause of death, and not suffocation.

Case 2.—A child nearly ten months old, in a fit of crying, screaming and passion, suddenly became pale, a little froth appeared between the lips, and in a moment life was gone. There was here no convulsive struggle, no purple countenance, and no croupy inspiration. The mother had observed upon one or two occasions before some strange appearances in the child, which induced her to expect an attack of con-

vulsions. She stated that it had been a cross child almost from its birth; for several months it certainly had been restless, crying a good deal; it was subject to attacks of diarrhœa, and passed green motions, it was also teething. Though not weaned it was fed partially upon spoonfood; some tea and sopped bread and butter had been given shortly before the fatal seizure, and this occured as the child was having the strings of its hat tied beneath its chin to be taken out of doors, which little operation it did not like to have done. Post-mortem forty-eight hours after death:—Rigor mortis not gone off. The blood was found black of colour, and fluid in every part of the body examined. Some was found in the left side of the heart, but none in the right. The left lung was congested, frothy mucus and dark blood flowed freely from incisions made into its substance. As the cranial bones were being sawn through, there was rather a free flow of liquid black blood, the saw having passed through the membranes, opening the sinuses, and into the substance of the brain. There was no congestion of the cerebral vessels, very few bloody points appeared, and there was no effusion into the ventricles. This examination, like that in the first case, did not afford a satisfactory clue to the cause of death, if we can exclude the influence of a large thymus gland. The gland weighed ten drachms, and the age of the child was nearly ten months.

The surgeon who was called to this child, and who was present at the examination of the body, gave evidence before the coroner and his jury, that this largely developed gland was in his opinion the cause of death. This testimony was satisfactory, and the verdict was in accordance with it. At that time I was very much of the same opinion, but subsequent reflection has induced me to think I may have been in error.

This child was pretty well nourished, and its mother did not think that it had any particular bodily ailments, yet it is certain that there existed intestinal irritation; in the gums there must have been irritation; and, perhaps, also in the brain. The whole nervous system was in a disordered condition, and in such a state what could be more likely to happen than spasms of the glottis and sudden death? Dr. Marshall Hall has taught us to believe that a fatal closure of the glottis occurs sometimes in disorders of the nervous system, attended with convulsive action. May it not occur without the presence of convulsive action? May not a state, somewhat similar, if not identical with that of the commencement of a paroxysm of laryngismus stridulus prove fatal before a partial relaxation takes place, and, consequently, unattended by any crowing inspiration? In fact, it is the relaxation of spasms and the crowing inspiration that saves the life of the child. I have seen an infant die almost momentarily in such a state, and the brain alone has exhibited evidence of an unnatural condition. Evanson and Maunsell, in their work upon the management and diseases of children, state that sudden deaths among children occur without our being able to discover the cause by the most careful examination of the body afterwards. And I can call to my recollection the case of a gentleman who was worn by extreme suffering, during a period of about ten years, from neuralgia affecting the nerves of the head and face, superior and inferior extremities, and those supplying the stomach and bowels, for some amount of pain with borborygmus was always felt about the umbilicus at the commencement of an attack. The severity of the pain attending the spasms which occurred now in the arm and then in the leg was almost unendurable. At last he died a mere skeleton, and nothing was discovered after death to account for all his prolonged sufferings. The brain, the spinal cord, and the semilunar ganglia of the great sympathetic nerve were carefully examined by a competent anatomist and surgeon in the presence of other parties. The only cause which could be assigned for originating all this suffering, was a blow received upon the abdomen from a cricket-ball.

Evanson and Maunsell, under the heading "Spasms of the Glottis," state that much confusion has arisen from the same disease having been described by different writers, under the names laryngismus stridulus, thymic asthma, spasmodic croup, inward fits, cerebral croup, etc.; and although spasm of the glottis has been made the *asylum ignorantiæ* for all unaccountable and sudden deaths in infants, there is, nevertheless, reason for the opinion that in some cases it is perfectly true. They further state that the enlargement of a thymus gland, of the bronchial glands, or of the deep-seated cervical glands, is only a complication, and not a cause of the diseases just mentioned. In the case No. 2, although the thymus gland was very largely developed, there existed obvious causes for such a disturbance of the nervous system; that a spasm of the glottis was equally, if not more likely, to have been the cause of death than the large gland; and if so, no morbid appearances would show the fact after death. In this case the trachea was found half-filled with food, which had been given a short time before. Our experienced Coroner stated that such regurgitation is not uncommon. I feel a little difficulty in explaining the fact. If I connect the regurgitation of food, and its entrance into the trachea, with any vital action whatever, even the last struggle of life, I add another link to the chain of causation of death; and if I view it as an after-death occurrence, I must suppose that position and pressure had caused the food to pass from the stomach and through the glottis. No one that was present has any recollection of having seen any food pass through either the mouth or nostrils. I know that fluids from the stomach are often seen passing through the nose or mouth of a corpse, but it has not occurred to me to examine the state of the trachea under such circumstances.

Case 3.—In a child which died of hydrocephalus acutus, age six months, the thymus gland weighed only 70 grains.

The 4th body I examined was that of a child with a contracted chest, weakly and unable to walk, subject to attacks of bronchitis, and which died while labouring under that complaint. The age two years and a half, the weight of thymus gland two drachms. I found extreme and excessive congestion of the vessels of the brain, with serous effusion into the ventricles, and serous effusion into the thoracic and abdominal cavities, a considerable portion of the lungs in a state of atalexes, the bronchial membrane inflamed, and some bronchial tubes enlarged; the right side of the heart and the pulmonary artery filled with dark blood, as likewise the intercostal veins. With this excessive congestion and effusion within the cranium, no convulsion occurred.

The 5th body examined was that of a child which had died of hooping-cough and inflammation of the lungs, and where the respirations had been very frequent, and pulse very slow, each about 60 per minute for two days before death, and I found abundant serous and bloody effusions in both thoracic cavities. The pleura highly inflamed, with exudation of lymph upon the inferior lobes of the lungs. The age one year and seven months; and the thymus gland was reduced to two cords, each about the thickness of a common quill. This body was very much emaciated; the child had been ill seven or eight weeks with the cough, before inflammation ensued.

The 6th body examined was that of a child which had been brought up by hand; it had been well nourished, and had exhibited no symptoms of illness. This child was put into its crib, close to its nurse's bed, at 8 o'clock in the evening, and was found dead about the same hour the following morning. The nurse took it out of its crib supposing it to be asleep.

Mr. Noyce was sent for, and his opinion was that the child had been dead several hours. This gentleman permitted me to assist at the post-mortem. The brain had been examined before I arrived, and Mr. Noyce reported it to be quite healthy. We found all the thoracic and abdominal organs healthy also. The muscles on the anterior aspect of the neck together with the sternum having been removed, we carefully dissected out the gland from the contiguous parts behind it, and from the pericardium, over one half of which it had descended. It consisted of two symmetrical lobes, and weighed nine drachms, one drachm less than the other large specimen. The age of the child was only seven months. Mr. Noyce gave it as his opinion that this large gland was the cause of death. It seemed very probable, in the absence of other evidence. I cannot, however, now see certain and satisfactory proof that it was so. The coroner acquiesced in the opinion delivered, and, as I am informed, expressed some surprise upon seeing the gland that the child should have lived so long. Now it must be remembered that this child was found dead, consequently we are ignorant of the manner in which it died. Had the child been in bed with its nurse it might have been said that it had been suffocated, as in the first case. It is possible that it might have been suffocated in its crib by breathing its own impure air, and if suffocated, or if attacked by a fatal

spasmodic closure of the glottis, from some remote local irritation, we should find no indisputable appearances after death that either the one or the other had happened. If size alone is to determine this question, the evidence is very much in its favour, but certainly it would be rather unphilosophical to exclude from our consideration the probable influences of causes which may have been in operation, as in other cases of sudden death where no very large gland had been found. Besides, we are but imperfectly acquainted with the natural size of this gland at different periods of the first twelve or eighteen months of infantile life; or if it be really subject to disease, or simply to over-growth. With such deficiency of knowledge we cannot be prepared to say what is really normal, and what is not; what size is compatible with health and life, and what is not. If a largely developed gland would give rise to such an amount of pressure upon the trachea as would arrest respiration, or upon the blood-vessels of the neck or at the base of the heart as would interfere with the circulation of the blood, and thereby cause a fatal congestion either in the head, chest, or both, it is rather inexplicable how either of these states should occur suddenly from the gradual growth, and, for aught we know, a normal growth of an organ necessary to the well-being of the infant.

It is this sudden extinguishing of the life of children, without the prior existence of any inconvenience, or of any symptom of ailment, and the want of sufficiently satisfactory proofs after death, that makes one call in question the truth of the doctrine now so readily subscribed to, that a largely developed thymus gland is a cause of sudden and unexpected death in children. This subject is now obviously and closely connected with Medical testimony. I trust that I have fairly and not uncourteously, though I own very imperfectly, opened a question which will probably be considered deserving of more attention and research than it has hitherto received by the Medical practitioner. We all know that the thymus gland is natural to the infant, that for a certain period it grows with the child's growth, that it is an organ conservative of health and of life, and therefore should not too hastily be converted into an organ of deterioration and of death.

Analysis of the Six Bodies Examined.

In 3 of these bodies the thymus gland was found of large size; 2 of these 3 children were found dead, and the third died suddenly in a fit of screaming, crying, and passion. Age of one child, 10 months; weight of gland, about 5 drachms; found dead. Age of another child, nearly 10 months; weight of gland, 10 drachms; died suddenly in a fit of crying, etc. Age of third child, 7 months; weight of gland, 9 drachms; found dead. The other 3 children died of diseases clearly ascertained during life. The age of one child, 6 months; weight of gland only 70 grains; cause of death, hydrocephalus acutus. The age of another child, 2½ years; weight of gland, 2 drachms; cause of death, bronchitis with contracted chest. The age of the third child, 19 months; the lobes of the gland reduced to the size of two ordinary quills; cause of death, hooping-cough with pneumonia: this child was much emaciated. In addition to the above, I have lately examined the bodies of twin children who died with symptoms indicating inflammation of the lungs, within six days of each other. The ages respectively 10 and 11 weeks. The thyroid and thymus glands of the larger and elder child weighed 3 drachms; the thyroid and thymus glands of the smaller and younger child weighed 2½ drachms. These few examples show that there is probably no real or certain correspondence between the age of a child and the size of the thymus gland; and, further, that in exhausting diseases, as in the hooping-cough case, it probably diminishes in size with the increase of emaciation.

Another very interesting case, occurring in Mr. Noyce's connexion, has come to my knowledge since my paper was read at the Society's meeting. A fine and apparently healthy child, on its mother's lap, suddenly stiffened its body, and died instantly. The age was nine months, and the weight of the thymus gland was 10½ drachms. I subjoin a few particulars. Dr. Hayne was the first gentleman who saw the child after the fatal seizure. He found the child dead, the hands dark of colour, with the thumbs drawn into the palms. The child had been placed in warm water, and removed before he arrived. The mother informed me that she was only able to nurse with one breast; that being weakly, she was obliged to feed the child with spoon-food; and that for several months it had been weaned during the day. The food was farinaceous, with milk; potato mashed with gravy was no uncommon meal, and the pulp of a ripe orange it was fond of. During the day the child was restless, seldom sleeping more than twenty minutes at a time; but during the night it was quiet and comfortable with the breast. It had cut six or seven teeth, and was cutting two more; it was not disordered in its bowels, and she considered it a healthy child. The father had the child, and was amusing it with his watch just before he transferred it to its mother, when it was seized with the fit and died.

Dr. Hayne, in the presence of Mr. Noyce, made a post mortem examination. Nothing was found wrong within the cranium, the thoracic and abdominal organs were also healthy, but the following points obtained particular attention. The stomach was distended with food mixed with the pulp of orange, the liver somewhat enlarged, and the thymus gland was large, weighing 10½ drachms. Dr. Hayne gave it as his opinion at the inquest, that the child died in a fit, excited by several causes of irritation to the nervous system, as dentition, disturbed digestion from unsuitable food, and an enlarged thymus gland. In this case the death was sudden and unexpected, and attended with spasmodic contraction of the muscles of the superior extremities, also of the inferior, and probably of the trunk. The child was teething; the digestive organs can hardly be supposed to have performed their functions in a healthy manner, where no very great care was taken to give none but proper food. And this is not inconsistent with the appearance of good, even of high health, in children which have been more or less brought up by hand. Such children are prone to convulsive attacks and disorders of the nervous system. The thymus gland was very large; but whether preternaturally so or not I cannot determine. I will not, therefore, take upon myself to say that its great size had nothing whatever to do with the cause of death, though the probabilities are rather against the supposition that it had. We must also not overlook the short sleeps and restlessness of this child during the day-time: they are very suspicious indications of nervous irritation.

DISLOCATIONS
IN THE
CERVICAL REGION OF THE VERTEBRAL COLUMN.

By CHARLES WILLIAMS, Esq.
Formerly Assistant House Surgeon to the Bradford Infirmary, Yorkshire.

(Concluded from p. 116.)

Dr. Schuk's case (No. 19) may by some be considered as not affording an example of a purely luxated cervical vertebra. For my part, I believe it to be as good a case as any of the others, and I place it among them as much on that account as on the authority of Dr. Schuk, who calls it "Dislocation without corresponding fracture," although the body of the bone was fractured. "There was no mobility of the fractured portions," for the fracture, as I take it, extended through the body as far as the anterior layer of compact tissue, which remained intact, and so preserved the integrity of the bone, and that its luxation forwards was independent of the fracture; if the former had been the effect of the latter, then certainly would there have been mobility of the parts.

In addition to the above cases, Ballingall (a) mentions an example of complete dislocation, which was transmitted to him by Mr. Oldknow, of Nottingham, "in which the displacement took place between the fifth and sixth cervical vertebræ. It was unattended with any apparent mechanical injury to the spinal marrow or its membranes, except what arose from pressure. The patient died about the fourth day." Mr. Samuel Cooper, in a Clinical Lecture on the subject (b), observes, "By the favour of a friend I was enabled a few sessions ago to exhibit to the surgical class of University College a specimen of a complete dislocation of the middle cervical vertebræ, without fracture. The man from whom it was taken was killed instantaneously, by his head being forced against the top of a gateway, as he was sitting on an omnibus, which was going along at a rapid rate. The body

(a) Outlines of Military Surgery. Fifth Edition. 1855. P. 320.
(b) London Medical Gazette, April 30, 1841.

was conveyed to the Middlesex Hospital. In the late Mr. Howship's museum might be seen another example of a complete dislocation of the cervical part of the spine, without fracture." This specimen, I have no doubt, is the one mentioned in the "Descriptive Catalogue of the Collection of Specimens in Pathological Anatomy," appended to Mr. Howship's work (c), and described as "A displacement and nearly complete separation of the sixth from the seventh cervical vertebra; the upper bone being forced suddenly backwards, and the ligamentous attachment to the anterior margin having torn off the superior edge of the body of the seventh vertebra, the invertebral substance being entirely separated, and nearly the whole ligamentous connexions of the bone." (d)

In all, then, we have thirty-two cases which are to be considered as examples of pure luxation, without corresponding fracture; in some cases the tips of the spinous or transverse processes were broken off, but this occurrence has nothing to do with the injury, as these processes do not form a part of the articulations.

Dislocation occurred in one case backwards, in twenty-two forwards. In two, the bone was twisted; in one of these the longest diameter was antero-posterior, in the other "the spinous process presented itself anteriorly;" in seven, the direction the dislocated bone had assumed was not mentioned, though I infer from the described appearances, that most of them occurred forwards. 24 happened to males, 4 to females, and in 4 cases no allusion was made to the sex.

The annexed table shows the frequency with which the accident occurred to each vertebra of the cervical region.

Vertebra dislocated	1st.	4th.	5th.	6th.	7th.	Not stated.	Total.
Number of cases . ..	1	3	17	8	2	1	32

The ages at which the lesion happened were,

Between 20 and 30	6
Between 30 and 40	12
Between 40 and 50	5
Between 50 and 60	2
Between 60 and 70	1
Not stated	6
Total	32

The symptoms attendant on these cases were for the most part uniform, and consisted of more or less loss of sensation and motion in all parts below the clavicles, but above them sensation was tolerably perfect; the mental faculties unimpaired; the surface of the body cold, though in some cases there was an increased degree of heat, which was persistent; (e) the respiration laborious, and performed wholly by the diaphragm and abdominal muscles; the ribs motionless; pulse weak and slow; stomach generally very irritable, rejecting everything; the urine retained; the dejections passed involuntary, and constant priapism. These symptoms became more and more aggravated, and death closed the scene, slight convulsions immediately preceding it, the cause of death being apparently "the upward extension of the disorganization of the spinal cord, so that the origin of the phrenic nerve is ultimately involved, and extinction of life takes place from asphyxia," (f) generally on the third or fourth day, although life may be prolonged to the twelfth day. (g)

On research, I find that simple dislocation is an accident that happens far more frequently to the vertebræ of the cervical than it does to those of the dorsal or lumbar series; although very rarely met with in the dorsal region, it nevertheless occurs, and is, therefore not, as many have supposed, impossible. Sir Charles Bell mentions a case, which he calls "an unique specimen" of dislocation between the last dorsal and first lumbar vertebræ; (h) and Ballingall (i) quotes a similar case from Baron Larrey's Works. Paletta (j) certainly adduces some instances of dislocatian of the vertebræ composing this region, as well as some of the cervical region, but they are so incompletely reported as to be of no value whatever. Rust (k) positively asserts that luxation in this and the lumbar portion of the column is by no means uncommon. Now Boyer declares that its occurrence in these two regions unattended with fracture is impracticable; for, says he, "the large surfaces by which they correspond, the number and thickness of their ligaments, the strength of the muscles lying on the column formed by them, the small motion of which each vertebra is capable; and lastly, the vertical direction of their articular processes, render a luxation of that part of the column entirely impossible. (l) With respect to the lumbar vertebræ, Boyer is probably correct, for I have not been able to find an instance of such injury occurring in this region on record; the conformation of these vertebræ differs so much from that of the other vertebræ, that we cannot wonder at an absence of this accident.

With regard to the causes which render dislocation so frequent in the cervical, as compared to the dorsal set, they are to be attributed, as Mr. Lawrance justly observes, to the "greater mobility of the individual bones, the comparative smallness of their bodies, and the obliquity of the articular processes, which point out the cervical vertebræ as those most likely to be luxated; at the same time the form of the neck, and its connexion with the head, are favourable to the application of such violence as may cause luxation (m)."

Opinions of Authors on the subject.

Sir A. Cooper (n) observes, "If luxation of the spine ever does happen, it is extremely rare; as in the numerous instances which I have seen of violence done to the spine, I have never witnessed a separation of one vertebra from another through the intervertebral substance, without fracture of the articular processes, or, if those processes remain unbroken, without a fracture through the bodies of the vertebræ. Still I would not be understood to deny the possibility of dislocations of the cervical vertebræ, as their articulating processes are placed more obliquely than those of the other vertebræ."

Delpech (o) denies *in toto* its possibility; and Benjamin Bell (p) agrees in opinion with him, and states that "they are so firmly united indeed, that I do not suppose that any of them can be dislocated by external violence without being fractured; I have never met with a complete dislocation of any of the vertebræ."

Chelius (q) says, "Dislocation of the bodies of the neck vertebræ cannot occur, on account of the breadth of their joint surfaces, the quantity and thickness of their ligaments, the strength of the muscles surrounding them, and the slight motion with which each vertebra is endowed; only when the bodies of the vertebræ are broken can they be dislocated." Abernethy (r) declares, "There can be no dislocation of the vertebræ. Surgically speaking, we do not take the word in its etymological sense; in Surgical language a dislocation is a

(c) Discrimination and Appearances of Surgical Disease. 1840.

(d) This specimen is in the Museum of Charing Cross Hospital. The portion of bone alluded to as adherent to the sixth vertebra is exceedingly small. The body of the seventh cervical vertebra is also displaced forwards, from a former injury, and is anchylosed to the bone below.

(e) It would have been interesting in these cases to have ascertained if the cord of the sympathetic was injured, a condition which has been shown by Bernard to be attended with an elevation of temperature in those parts supplied by the vessels receiving nervous filaments from the injured portions of the sympathetic. According to his experiments it appears that this increase of temperature takes place on one side of the face, when the trunk which unites the sympathetic ganglia of the neck on that side is divided, and that it is "not only perceptible to the touch, but shows itself by a thermometer introduced into the nostrils or ears, even to the extent of from 7 to 11 degrees Fahr. When the superior cervical ganglion is removed the same effect is produced, and with yet greater intensity. This difference is maintained for many months." Sir B. Brodie has pointed out that an elevated temperature of the body sometimes occurs after injuries to the spinal cord; he records a case of complete paralysis from the neck downwards, consequent on a severe injury to the cord in that region, in which "the heat of body, as shown by a thermometer placed on the inside of the groin, was not less than 111 degrees, and this notwithstanding that the respiratory function was very imperfectly performed, the number of inspirations being considerably reduced, and the countenance being livid."—Carpenter's Principles of Human Physiology, 1855, fifth edition, p. 418; Kirke's Hand-book of Physiology, third edition, p. 194.

(f) Dupuytren, Injuries and Diseases of Bones; Syd. Society's Works p. 345.

(g) See Cases Nos. 12, 20.

(h) "The spine was dislocated by a heavy coach pushing down the child. It survived, and died thirteen months after of croup."—Injuries of the Spine and Thighbone, 1824, page 79.

(i) Outlines of Military Surgery, fifth edition, p. 320.

(j) Exercitationes Pathologicæ. Mediolani, 1820, caput 15.

(k) Arthro-Kakologie, p. 70.

(l) Lectures on Diseases of the Bones. Translated by M. Farrell, 1301, vol. ii. ch. 6, p. 75.

(m) Medico-Chirurgical Transactions, vol. xiii. p. 389.

(n) A Treatise on Dislocations and Fractures of the Joints. 10th Edition. p. 377.

(o) Précis Elémentaire des Maladies reputées Chirurgicales. Tom. iii. p. 42.

(p) System of Surgery. 5th Edition, vol. vi. p. 16.

(q) A System of Surgery. By J. South. Vol. i. p. 534.

(r) Quoted by South, p. 534.

displacement of bone, with a laceration of ligament, unaccompanied with fracture; for if there be fracture, it is not a dislocation; but, from their position, if one vertebra be knocked in, its articular surfaces must be broken." Cæsar Hawkins (s) tells us, that "dislocation of the spine without fracture has been denied by some Surgeons, and is generally considered very rare. I have seen it, however, several times, and there is no doubt of its occurrence."

Pirrie (t) and Bransby Cooper (u) make no allusion to dislocations of the spine. Miller (v) says that "Luxation of the spine without fracture of the processes is a rare injury, yet it has occurred occasionally in the cervical region."

Samuel Cooper (w) observes, "Dislocation of the first vertebra from the second is the most common; but luxations of the cervical vertebræ lower down, though very rare, are possible." Ferguson (x) says, "The cervical vertebræ are occasionally displaced; but dislocations in this region are few, and of rare occurrence. I have not myself seen any case of this kind." Erichsen (y) affirms that "dislocation of any of the five lower cervical vertebræ may occur. These injuries are usually associated with fracture; but sometimes, though rarely, they happen without this complication." Liston (z) observes, "Luxation is rare. A good case of spine luxation of the cervical vertebræ occurred under my care." (a) Marjolin (b) remarks, "On n'a pas encore observé la luxation simultanée et de bas en pant des deux apophyses articulaires inférieures d'une de ces vertèbres; elle ne pourrait avoir lieu que dans une violente flexion de la tête et du thorax sur le cou; mais on a plusieurs exemples du luxation latérale d'un seul côte." And, lastly, Rokitansky (c) assures us that "the lateral articulations of the vertebræ are more rarely dislocated in proportion to their distance from the occiput and two upper cervical vertebræ."

London, May, 1857.

THE LONDON

PRACTICE OF MEDICINE AND SURGERY.

REPORT ON THE ENUCLEATION TREATMENT OF UTERINE FIBROUS TUMOURS.

(Concluded from page 143.)

COMMENTS ON THE SERIES.

It will be observed that the operations recorded in the series given last week, although having the same result in view, may be divided into two classes, on account of the different mode in which it was attempted to be brought about. The first class would comprise those of *enucleations properly so-called*, in which the Surgeon aimed at completing the removal of the tumour at the time; and the second, those of *enucleations by gangrene*, in which a series of procedures were adopted with the object of exposing and partially detaching the growth, in the hope that its death and extrusion might follow. The former, of course, give us far more serious operations, but in the latter the process is a gradual one, and therefore the risk attending it is protracted over a much longer space of time. If the indications of the following table might be relied on, it would appear that the gross risk of the two modes is almost equal, and that under either about two-thirds of the cases end in recoveries. We must examine the comparative merits of the two in a little more of detail.

Method pursued.	Number.	Recovered.	Died.
Primary enucleations (completed)	18	12	6
Ditto (attempted but not completed). ..	6	4	2
Enucleation by inducing gangrene	15	9	6

(s) Clinical Lecture, Medical Gazette, 1843 and 1844, p. 210.
(t) Principles and Practice of Surgery, 1852.
(u) Principles and Practice of Surgery, 1852.
(v) Practice of Surgery, 3rd edition, p. 296.
(w) Dictionary of Practical Surgery, 4th edition, p. 366.
(x) Practical Surgery, 2nd edition, p. 477.
(y) Science and Art of Surgery, 1853, p. 277.
(z) Practical Surgery, 4th edition, p. 57.
(a) Case, No. 3.
(b) Dictionnaire de Médecine, Paris, 1825, art. Luxation.
(c) Pathological Anatomy, Syd. Society's Translation, vol. iii. p. 246.

PRIMARY ENUCLEATION.

Were the cases in which enucleation by gangrene has been practised by Professor Simpson added to the above table, that method would compare with still less advantage with the primary mode than it now does. But the truth is, that the cases in which it was pursued have been, as a rule, much more serious ones than those in the first list. In most the tumour was of very large size, and either actually embedded in uterine tissue, or at any rate wholly enclosed within the cavity of the womb. Under the head of "primary enucleations," on the other hand, are included several cases in which the tumour was of small size (less than a pear), and several others in which it was already somewhat polypoid in shape, having been partially extruded by the spontaneous contractions of the organ. (a) In these, of course, the danger to life would be but comparatively little. Of cases in which the tumour was of considerable size, intra-parietal, and not protruding either into the uterine cavity or the vagina, and in which, consequently, primary enucleation was undertaken under the most dangerous circumstances, we have thirteen, and of these seven ended in recovery, and six in death. In the less serious class, those viz. in which either the tumour was small in size, or already projected considerably, we have ten, out of which only two ended fatally, and of these two, in one the tumour, although projecting into the uterine cavity, was so large that its removal had been found impracticable. It is evident, therefore, that in cases in which the two conditions of moderate size and of somewhat depending position are combined, the operation of primary removal by incisions and the use of the finger is attended by very little danger. In those in which the growth is of large size and completely embedded, the chance of recovery after its removal is about equal to the risk of death. In the largest of all, those, for instance, in which the tumour approaches the size of an adult head, no Surgeon would ever dream of primary enucleation. Among the causes of death we find peritonitis and inflammation of the pelvic cellular tissue to be by far the most frequent. The hæmorrhage, with one or two exceptions, is stated to have been insignificant, and very few appear to have died directly from the shock of the operation. Although in several the operators state that they felt themselves at the time in great risk of lacerating the peritoneal investment of the uterus where spread over the surface of the tumour, yet that accident does not seem to have ever actually occurred. In only one case is it stated that any serious hæmorrhage continued after the operation was concluded. Among the cases which recovered in not a few the patients were very ill indeed, and had narrow escapes of death either from peritonitis or exhaustion.

MODE OF PERFORMING THE OPERATION.

Whoever has either witnessed its performance, or read the detailed accounts given in some of the French narratives, will have no difficulty in admitting that the enucleation of a large embedded uterine tumour is an operation which calls into requisition first-rate surgical endowments. In not a few on record it occupied between two and three hours in its performance, and presented such obstacles, that the operators were repeatedly on the point of relinquishing their task. The circumstance that these tumours not unfrequently occur to single women, in whom the vagina is narrow, often adds to the difficulties of a case. It is, of course, impossible to give rules which should be applicable to all; but the following memoranda are the result of much investigation, and a careful perusal of all that has been recorded, and will probably be useful to any one who may contemplate its performance for the first time. 1. To have the tumour well depressed into the pelvis by an assistant. 2. To let the first incisions be very free, and pass deeply down into the tumour, thus not only completely dividing its capsule, but facilitating its bisection, should that afterwards be found requisite. This first incision should be made with a scalpel. In most cases it will be found convenient to pass the knife into the uterine cavity, and then turning its edge on to the tumour, cut downwards, and either forwards or backwards, according as the mass may occupy either the anterior or posterior wall. All experience goes to show that no important hæmorrhage is to be feared from this

(a) We have used the term "spontaneous enucleation" erroneously in reference to Mr. Teale's third case (Case 25). It should have been "spontaneous *extrusion*," as although the tumour hung low in the vagina, it was still covered by uterine mucous membrane in all parts.

incision, and, if directed in the manner indicated, the whole substance of the tumour will intervene between the knife and the peritonæum. 3. The capsule of the tumour having been opened, its separation should next be effected by means of the finger, or, if needful, by blunt-pointed curved scissors, the finger being used as a director. 4. The Surgeon should be provided for this part of the operation with a set of curved scissors, of various sizes and shapes; one pair at least should be very long indeed. He should also have several pairs of strong and large vulsella, a spatula, a blunt hook, a scoop, and a pair of small midwifery forceps. In several cases the operators appear to have been baffled for want of vulsella of proper size and strength for securely holding the tumour. A strong whipcord ligature, and the various appliances for its use, should be in readiness in case of need. 5. The grand object of the operator, after having separated the tumour from its cyst wall sufficiently to allow of its lower part being seized, is to invert the uterus, and drag that viscus, together with the tumour, to the external parts. If this be accomplished, the main difficulty of the operation, that, namely, of working in a confined space, is overcome, and a speedy conclusion may be effected. To do this, a large vulsellum should be carefully planted in the mass, and traction, at first gentle, afterwards vigorous, must be exerted. The axes of the pelvis must, of course, be carefully observed, and the traction must be steady, and not by jerks. As soon as practicable a second vulsellum must be placed above the first, or, if more convenient, the midwifery forceps may be employed. 6. After eversion has been accomplished, an examination with the finger in the rectum should be made, and the relative position of parts having been duly ascertained, the remaining attachments of the tumour must be cautiously separated. The utmost care must be exercised not to cut into an inverted pouch of peritonæum. 7. It is very possible, if the tumour be a large one, that it will be found convenient, before drawing it down, to cut away a portion or portions, and thus diminish its bulk. 8. It is needless to remark that throughout the utmost patience must be exercised, and as much gentleness as is consistent with the requisite degree of force. 9. The operation complete, the everted uterus must be returned; if needful, a sponge plug should be introduced, and a full dose of opium should be given. 10. The use of ice, of the ergot, and of diffusible stimuli must be resorted to, or not, according as circumstances may require.

AFTER-TREATMENT.

The after-management of these cases must, of course, be conducted on general principles. The writer has, however, to speak in terms of the strongest commendation of the use of turpentine in that form of low inflammation of the pelvic organs, or peritonæum, which not unfrequently follows. It is more especially indicated if rigors have occurred, or if there be symptoms of impending pyæmia. The dose should be from 20 minims to half a drachm. Should there be abdominal tenderness, turpentine stupes may be usefully resorted to. Opium in full doses is another sheet anchor. Perhaps the symptom of restlessness will be most reliable by which to distinguish the cases most needing this drug. There would be no objection to combining its use with that of turpentine; but in cases in which the patient was sinking into helpless, profound exhaustion, and no peculiar degree of restlessness was present, the writer would prefer to rely on turpentine.

ENUCLEATION BY INDUCING GANGRENE.

This method, if we count those in which primary enucleation was attempted but could not be effected, and include also those believed to have occurred in Dr. Simpson's practice, has been performed in about 27 cases. Out of these there have been about 13 deaths, 10 recoveries, and 4 incomplete cases, in which either it was known that the whole of the tumour had not come away, or there was a return so soon as to render it highly probable that some part had been left behind. Almost all these were cases in which the tumour was of very large size, and in several the operation was undertaken on account of immediate urgency, and after the patient had been reduced to the very lowest state by hæmorrhage. Thus it appears probable that of cases of this class somewhat more than one half may be expected to come safely through the risks incident to the procedure, and rather less than half to result in complete cures. It must be borne in mind that a large majority, indeed almost the whole, were out of all possibility of treatment by the primary method. This plan has the recommendation of being an attempt to imitate nature. Although confessedly very infrequent, yet cases have occurred in which fibrous tumours of the womb have sloughed and been extruded from their bed without the assistance of the Surgeon (b). A far more common event than this is for them to become pedunculated and assume the polypoid form without wholly losing their connexions to the uterus. Although but few facts exist on which to ground a positive opinion, yet, judging from those which have fallen under our notice, we suspect that the fatality of the cases in which spontaneous extrusion has occurred has been little less than that of those in which it has been induced artificially. The process is one always attended with much constitutional irritation. Although no single operation is required in itself involving much risk, yet with a large sloughing mass in such an important position, with fetid discharges continuing for several weeks, the patient is kept for a considerable time in constant danger of the development of some fatal complication, in the form of pyæmia, peritonitis, or a low type of inflammation of some of the internal viscera. Repeated, if not almost daily, manipulations are needed, and the increased risk of some contagion, either of erysipelas or pyæmia, being thus conveyed by the Surgeon, must not be lost sight of, especially if the patient be an Hospital inmate (see Case 80). Then, again, it must be borne in mind that the patient has been reduced by long-continued hæmorrhages, and that in all probability her vital organs are already, to some extent, in a state of fatty degeneration, a condition which, under the evil influence of profuse suppuration, is not unlikely to become rapidly advanced to a degree incompatible with continuance of function (see Case 33). These kinds of risks render the operation one which will always be attended with much danger, and we think all will admit that it is one which ought never to be performed in an Hospital ward. A healthy locality, and privacy in a large well-ventilated room, with the undivided attentions of a nurse, should be regarded as essential conditions. With these, and with most persevering attention to every minutiæ in the Medical and dietetic management of the patient, it may, perhaps, be reasonably expected that the mortality, even in severe cases, might not exceed a third; but there are certainly no grounds for hoping for a success beyond this.

With regard to the plan of operating, it would appear that the knife possesses great advantages over escharotics. The object is as much as possible to separate the adhesions of the tumour from its cyst, and to thus cut off its vascular supply. Now the effect of the application of escharotics is well known to be to induce the union of subjacent parts, and of this the surgeon not unfrequently avails himself, as in the instance of abscess in the liver, requiring to be opened externally. The dread of hæmorrhage from the incisions has been proved by experience to be a chimera, and the prevention of this is, as far as we can see, the only shadow of an advantage which can be claimed for the escharotic plan. By means of a free incision the surgeon may not only divide the capsule thoroughly, but damage the tumour itself, and permit of the finger being employed at the time to accomplish the separation of the cyst wall to as great an extent as practicable. The usefulness of ergot after a free opening has been made, and the certainty of its action in promoting the expulsion of the tumour, is a point on which all observers agree. Whether or not an attempt should be made to accomplish the enucleation of the sloughing mass by the hand within a week or two of the commencement of the treatment, or whether it should rather be left to disintegrate and come away in fragments, is a point which the circumstances of the particular case must decide. Dr. Atlee's experience seems to be that the tumour may be left to disintegrate with very good confidence (provided it have been well exposed and freely cut into) that such result will ensue; and some facts which have fallen under the writer's observation lead him to give full credence to this *à priori* improbable statement. The

(b) For an interesting example of this, see Mr. Grimsdale's paper in th Liverpool Medico-Chirurgical Journal, No. I. We do not know where to turn for the record of an instance of spontaneous piecemeal disintegration, such as occurs in the cases surgically treated. One such, however, happened in St. Bartholomew's a few years ago, the patient being one of the ward nurses, and its particulars have been mentioned to us in conversation by Mr. Paget. The woman recovered, but Dr. West informs us that subsequently another tumour protruded, as a polypus, was removed by ligature, and that death from pyæmia followed.

vitality of many uterine fibroids appears to be very small indeed, and comparatively little interference will often suffice to ensure their death, whilst the manner in which large tumours, when they have once become sloughy, will as it were melt away, is quite astonishing.

WHAT EVENTS MAY BE EXPECTED WHEN FIBROUS TUMOURS ARE NOT INTERFERED WITH?

The determination of the feasibility of the enucleation treatment does not rest solely on an accurate estimate of the amount of risk which inevitably attends it. We must consider the other alternatives which are offered us. And here, in truth, is by far the greatest difficulty of the question. If these tumours were always fatal within a short space of time, no one would hesitate to recommend a procedure that offers a fair chance of a complete cure in a proportion of about two-thirds. But we know, on the other hand, that they are of by no means infrequent occurrence, and often cause to their possessors exceedingly little inconvenience. In cases, too, in which at one period of life, and that often a protracted one, repeated and exhausting hæmorrhages have been induced, we know that not infrequently the tumour will either alter its position, diminish in size, or undergo such modification in its relations that the troublesome symptoms cease to occur, and the patient be restored to health. On this point we will quote only the confirmatory testimony of Lisfranc, which is the more valuable because it comes from an ultra-partisan of the operation. After speaking of temporary abatements of symptoms, that Surgeon writes: "Il est des personnes plus heureuses: après avoir éprouvé pendant quelques années des douleurs violentes, des pesanteurs fort incommodes, des pertes très-abondantes, beaucoup de troubles dans les fonctions digestives, etc., elles voient ces phénomènes morbides se dissiper; l'embonpoint renaît et même quelquefois la fraîcheur: il existe seulement un peu de fleurs blanches, une légère pesanteur et quelques petites douleurs dans les reins; j'en soigne plusieurs qui portant des matrices énormes et fortement bosselées fournissent depuis dix ou douze ans leur carrière avec les faibles inconvénients que j'ai indiqués; elles semblent promettre de la poursuivre longtemps et peut-être même, à l'aide des moyens hygiéniques et de quelques soins thérapeutiques, comme si l'utérus était à l'état sain."—Clin. Chir. de la Pitié, vol. iii. p. 16.

Researches in the pathological theatres show us what these changes are, the effects of which we have noticed in the sick room. Uterine tumours are often found contracted, and to a large extent ossified, or lodged in the outer part of the uterine parietes, or even pedunculated into the peritoneal cavity. We might also mention, under the possible events which may obviate the necessity of an operation, that spontaneous enucleation may occur; but, as we have seen above, that the risks attending this process are probably as great as when the surgeon interferes, it need not claim much attention. Thus, then, there are probably but very few cases in which the conscientious surgeon could say to his patient that the chance of recovery without an operation was hopeless. Still, however, that a number of deaths from these tumours (c) does occur is undoubted; and in certain cases the amount of reasonable hope is, it will generally be admitted, very small indeed. While, therefore, the indiscriminate adoption of these operations would be exceedingly unwise and wrong, yet we cannot but think that the reverse is the case under conditions of urgency. It happens very fortunately that those tumours which cause serious symptoms are usually the ones most easily accessible. The proximity of the tumour to the mucous membrane of the uterus or vagina, but especially of the uterus, appears to be the main determining cause of hæmorrhage, and just in proportion as it bulges inwards is of course its suitability for enucleation. Tumours of very large size have, on the contrary, usually risen well out of the pelvis, and the symptoms attending them are often comparatively insignificant. Two cases, which well illustrate these remarks, are at present under the treatment of the writer. In the first the tumour is apparently about the size of an infant's head, is lodged in the posterior wall of the uterus, and is wedged in the upper part of the pelvis. The patient, a single woman aged 46, formerly enjoyed excellent health, and was in very comfortable circumstances, being a clever hand at the umbrella trade. The tumour has been known to exist for four years, and during that period she has been reduced to a most feeble state, and wholly incapacitated both for her occupation and for any enjoyment of life. She has now the anæmic, blanched aspect of a patient in the last stage of a malignant disease, and was indeed at one period under care at a certain special Hospital, where she was told that her disease was cancer. The feet are often œdematous. The tumour can be easily felt above the pubes, but does not rise high. At present a course of the bromide of potassium is being employed, but repeatedly, during the last year, the propriety of attempting enucleation has been considered, and several consultations have been held. The second case is that of an unmarried woman, aged 30. The tumour is an enormous one, reaching higher than the umbilicus, and distending the abdomen as if in the last week of pregnancy. Yet here the symptoms are comparatively in abeyance. Menstruation is regular and not too profuse, and attacks of hæmorrhage occur only at intervals of several months. She is able to follow her occupation as a dressmaker regularly, and suffers very little inconvenience beyond the weight, etc. of the mass. It would, of course, under such circumstances, be madness to think of attempting any Surgical treatment.

(c) An instructive and warning case of death from a fibrous tumour, which was in slow process of spontaneous extrusion, is given by Mr. Grimsdale in the paper already referred to. The tumour was found after death to have been in every way well suited for artificial removal. Many such might, doubtless, be collected. We refer to Mr. Grimsdale's paper with much pleasure, on account of the ability and candour which characterise it. Those of our readers who contemplate the performance of operations of this kind will do well to refer to it, as well as to the detailed descriptions which have been given by French Surgeons.

CONCLUSIONS.

We state the following as conclusions, not in any dogmatic or positive sense of the term; they are the impressions arrived at after much careful study of the subject, but further experience may very likely modify some of them:—

1. That surgical interference with interstitial fibrous tumours of the uterus is always attended with very considerable risk, and ought not to be practised except under circumstances of urgency, or when the position of the growth is peculiarly tempting.

2. That when the tumour is not of very large size, and is already partially extruded, the operation is rendered comparatively devoid of danger, and ought to be performed at once.

3. When the tumour is yet wholly imbedded, and even when of large size, the enucleation treatment is yet warrantable, if the patient's life be threatened by hæmorrhage.

4. That primary enucleation, where at all easily practicable, is much preferable to the secondary method.

5. That where the tumour is very large, or where found after the incisions to be firmly united to its capsule, the secondary plan should be preferred.

6. That whichever plan it is intended to adopt, the first incision should, excepting under unusual circumstances, be made from within the cavity of the cervix, and should be as free as possible.

7. That the danger of hæmorrhage from this incision is very slight indeed.

8. That as much should be done as practicable at the first operation in the way of freeing the tumour from its cyst. Thus if the adhesions be found more loose than had been expected, a primary enucleation may be completed where the slower plan had been proposed.

9. That the after-treatment in cases of primary enucleation should consist in warding off the shock by opiates, in sustaining the strength, and in the free use of stimuli and nutritious diet.

10. That in cases of secondary enucleation the ergot of rye should be administered, so as to keep up vigorous uterine action, that the greatest attention should be paid to sustaining the patient's strength, and to the removal of discharge, and shreds of slough, as fast as formed.

11. That in cases of great exhaustion, and threatened pelvic inflammation, the internal use of turpentine is of great value.

12. That in cases of secondary enucleation the Surgeon need not be anxious about the removal of the tumour *en masse*, but may entertain a good confidence, that if it have taken on a sloughy state in its lower part that the death and piecemeal disintegration of the whole will follow.

13. That the "recurrent fibroid" tumours slough away yet more readily after interference than the true fibrous ones, although liable to return after a short interval of health.

14. That after a successful enucleation procedure, complete, though gradual, restoration to good health may be expected.

JONATHAN HUTCHINSON.

KING'S COLLEGE HOSPITAL.

DEATH FROM CHLOROFORM.

We regret much to have to record this week a death from chloroform, which occurred under unusual circumstances at King's College Hospital a few days ago. The following account of it has been kindly furnished to us by Mr. C. Heath, the House Surgeon of the Hospital.

The patient was a female, aged 17, under Mr. Partridge's care, with syphilitic warts and mucous tubercles. She was admitted July 8, and had had chloroform administered twice, in order that the sores might be touched with nitric acid, and on both occasions not the slightest ill effect was produced. On Friday evening last chloroform was again administered for the same purpose; only a drachm was put in the inhaler (Snow's), and as soon as she became unconscious the inhaler was removed, and the acid applied. I and my assistant (who administered the chloroform), then went to see another patient in the same ward, and then washed our hands, during which time the patient was moving her legs about much as they do when recovering, and in addition she made water over the bed. I gave directions to the nurse to apply a poultice as usual, and left the ward, having been up to the bed first without noticing anything unusual about the patient. In a few minutes the nurse came down for some medicine for another patient, and mentioned that this one was looking very pale; I sent up Mr. Liddon to see her at once; he found her pale and senseless, dashed some water over her, and called me, and I went up immediately. I found her pulseless and cold, and immediately commenced artificial respiration (Marshall Hall), and sent for the galvanic battery; this was brought and applied without effect, and the artificial respiration was continued for twenty-five minutes without the slightest effect being produced.

Post-mortem.—Great thickening of mitral valves, and organized lymph in the pericardium, and attached to surface of heart. Other organs healthy.

A Coroner's inquest was held on Wednesday the 12th, when a verdict of "Death from effects of chloroform, no blame being attributable to Medical officers of Hospital," was returned.

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Medical Times & Gazette.

SATURDAY, AUGUST 15.

PROFESSIONAL INCOMES.

At the present season of the year, when one Medical Session has just terminated, and another is at no long interval about to begin, it is a matter of considerable interest with those who are still deliberating upon the future destination of their sons, to inquire the cost of the preparation required for the different professions, the chance of success, and the consequent emolument which each is likely to afford to the aspirant. Our own thoughts have been turned in this direction, not only by the accident of the season, but by some remarks on Professional Incomes which have lately been published in the columns of the leading political journal, and by the perusal of a very able work on the Choice of a Profession, by Mr. H. Byerley Thomson, of the Inner Temple.

It is stated in the *Times*, evidently upon the information of statistics, that the profits of the Profession of Physic appear of late years to have declined, inasmuch as they were greater in the first half of the nineteenth century than in the present day. The writer of the article, while positively asserting the fact of the diminution, is unable to decide whether the profits are now distributed over a wider surface, or whether the whole divisible sum has been diminished by the improved habits, and consequently the better health of society. There are, however, other causes in operation to lower the scale of Medical remuneration, besides those hypothetical circumstances just alluded to. The truth is that, with the improved education of Medical men, the system of drenching their patients with an unnecessary quantity of drugs for the purpose of augmenting their profits has gradually fallen into disrepute; and the large incomes formerly made by the mere dispensing of medicines are now unknown. The general public are very little aware that in the Medical attendance which they now receive they have much superior advice, and at a much less cost, than they formerly were able to obtain. But, instead of being grateful for the boon, that many-headed individual, the public, merely diverts the rewards which it has to bestow from the qualified practitioner of medicine to the half-qualified pretender, or to the impudent and ignorant empiric. In proportion as sound science has taught the well-educated professors of the healing art to rely more upon hygienic principles and less upon mere drug-medication, so does the weak and credulous portion of the public resort more urgently to the drastic pills, or the inert globules, or the mesmeric passes, or the hydropathic sluicings, of the quack.

In fact, it appears inevitable that the public should be deluded in one way or another; and the honest practitioner will gnaw his crust in obscurity while the mendacious impostor, more wise in his generation, shall dazzle the world with the magnificence of his dwelling and the sumptuousness of his equipage. As we have seen on too many occasions, the conscientious practitioner who informs the timid and nervous patient that his disease is trivial or imaginary will, perhaps, receive his guinea, but will certainly not be consulted again; while the same patient will be fleeced to his last farthing by the quack, who boldly invents a disease, and at the same time announces himself as the only person who is able to cure it.

But let us turn away from this painful picture of human folly and depravity, the sources of which are, perhaps, too deep for legislation, however open they may be to censure and ridicule. A much more agreeable and profitable task is to consider, amidst all the obstacles which beset the practitioner of Medicine, what are the reasonable prospects of success which he may cherish in entering upon the pursuit, and how far the emoluments he is likely to receive are greater or less than those which are derived from other Professions.

The same authority which we have already quoted, namely the *Times*, thinks that the Medical Profession has not much reason to complain, for that the number of Physicians and Surgeons in the metropolis enjoying incomes of £5000 a year approaches pretty nearly to twenty; no great income and no great number of recipients, we should remark, when we are told in a previous paragraph that the incomes of twenty-four Barristers range from £5000 to £20,000 a year; and those o twenty-four Judges from £1800, to £8000 a year.

But the truth is, that however great may be the incomes received and the fortunes occasionally made by the members of the Legal Profession and by the Church, yet the Medical Profession, on the whole, is quite as remunerative as either of

the others, as may be shown by the following arguments derived from Mr. H. B. Thomson's volume.

The whole income of the Church is pretty well known, and the number of clergymen is also ascertained with tolerable accuracy. Now it appears, by comparing the gross ecclesiastical revenues with the number of benefices, that each beneficed clergyman would receive about £300 per annum if the emoluments were equally divided; and by similar calculations it is shown that each curate, supposing the same equal division to be made, would receive £81 per annum. But it must be recollected, both to the advantage and the disadvantage of the Church, that while on the one hand no clergyman can be without *some* provision, yet that the income in very many cases is exceedingly small, especially where a wife and family are to be provided for; and that it is quite impossible, in many cases, for the clergyman to increase his scanty annual pittance.

The Legal Profession offers unquestionably the most brilliant prizes to the successful competitors for its honours; but it may fairly be questioned whether the *prestige* derived from this circumstance is not fallacious when viewing the Law generally as a remunerative calling. It differs from the Church in this respect, that whereas in the Church every clergyman must have an income, however small, there are a great number of barristers who make *nothing at all* by their Profession. The number of barristers at present in practice is somewhat above 4000; but when those who occupy public employments at home and in the colonies are subtracted, the number is reduced to about 3200; and of these, the author of the "Choice of a Profession" calculates that 1500 are totally unsuccessful; that is to say, they receive no remuneration whatever. Taking as a basis the known number of practising barristers, and estimating the whole income of the Profession at £500,000 annually, each barrister would receive only £100 a year. The income of solicitors is less than that of successful barristers, while the expense of their education is very much greater; but a solicitor is able to acquire practice at an earlier period than the barrister.

The Profession of Medicine, although not offering such high prizes as the Church or the Bar, affords, nevertheless, a reasonable prospect of emolument at a comparatively early period and to a large class of persons. The statistics on this point must be less satisfactory than in the case of the two other Professions just alluded to, inasmuch as there is no official return of the number of duly qualified Practitioners of Medicine and Surgery, and there is no method of ascertaining their absolute or relative annual income, except from the returns of the Income Tax collectors, which, even if generally accessible, would not, for obvious reasons, be very conclusive. Notwithstanding the imperfect nature of the data, Mr. H. B. Thomson estimates the profits of a successful London Physician at a sum varying from £800 to £3000 a-year, and the average profits at £500 a-year, and the whole Professional income at £1,000,000. The profits of the General Practitioner are set down as being from £300 to £1200 a-year, and the average at £500, and the whole profits of this branch at more than £5,000,000. Without being in a position to refute this calculation by the evidence of figures, we conceive that the income of the Profession is here very much over-estimated, and that the average income of Physicians and General Practitioners is much below £500 a-year.

In the case of the Physician and the pure Surgeon, the expense of education, and the cost of maintenance during the period which must necessarily elapse before the practice becomes remunerative, are out of all proportion to the subsequent incomes, however large a few of them may be; but those who are content to essay a humbler flight, and to enter the ranks of general practice, may in most cases obtain a moderate livelihood, and in some instances (not so numerous as formerly) may acquire wealth. The position of Assistant to a senior practitioner, or of Apothecary or Resident Medical Officer to an Hospital or Dispensary, or, last of all, even a Poor-law appointment, will afford an income, however moderate, to the newly-fledged practitioner, even without any private resources at all; while, if he happen to possess influence, or money, or friends, his chances of early success will be proportionally augmented. For those, again, who are willing to leave the land of their birth, the Army, the Navy, the East India Company's Service, and the Colonies, affords emoluments and rewards more or less lucrative; and in thi latter respect, perhaps, the Medical Profession offers superior advantages to those presented by the Church and the Law; for whereas the latter are limited in their sphere of operation by local circumstances, Medicine, on the contrary, knows no limits except the boundaries of the habitable globe. Wherever human beings are found to exist, whether dwelling upon the earth or borne upon the waves of the ocean; whether cultivating the arts of industry and peace, or engaged in hostile conflict,—under all conditions and circumstances the Practitioner of Medicine appears as the friend of humanity, ready to extend his beneficent offices alike to friend and foe, without regard to country, climate, religion, or race.

We might expatiate upon the extensive scope of the studies of the youth who is about to enter our Profession, and of the noble ambition which ought to actuate, and does actuate many of our brethren, irrespective of mere pecuniary considerations; but such a digression would be foreign to our present purpose, which is to give only a prosaic account of the probable worldly success likely to attend the efforts of an ordinarily fortunate Medical Practitioner.

THE WEEK.

It is with no small regret that we observe the negligence that has been exhibited in high quarters as to the comfort of our soldiers now proceeding to the East, who, notwithstanding innumerable representations on the part of the Press of this country, are sent to march and to fight upon the burning plains of India in clothing wholly unsuited to the climate, and actually dangerous to the wearer. Surely it requires only common sense to prove that the clothing which is adapted to our own or a Canadian winter, must be an useless and pernicious encumbrance under a tropical sun; but such is the attachment to routine that as yet no alteration has been made, although it is only just to observe that an amendment has been promised. Sir John Ramsden, the Under-Secretary for War, acting, no doubt, on erroneous information, informed the House of Commons last week that, "in addition to other changes, the troops now going out to China and India have been provided with white cotton helmet and forage cap covers. In fact," continued Sir John, "the Government have taken every precaution to maintain the health and comfort of the troops." The commentary of the *Times*, which turns out to be strictly correct, is as follows:—"For this direct assertion we regret to say there is not the least foundation. No 'white cotton helmet' or 'forage cap-covers' of any kind or description whatsoever have been issued to the troops which have lately left our shores. In heavy marching order they have embarked; in heavy marching order they will disembark in India, and must, of course, in the present emergency, instantly move against the mutineers. It is no exaggeration to say that the officers of the corps which have lately started have been oppressed with dread as to the effects of the climate on their men while muffled in their present equipment. If any regiments should have been provided for, surely it was those which sailed yesterday—the 97th, 20th, and part of the 42d Highlanders.

Yet we know that these men had not a single cap cover, and that they will land in India in the same uniforms in which they quitted Aldershott and Shorncliff, without as much as a cloth to cover the hideous black shako, which is truly nicknamed in those regiments the 'Sepoy's Friend.'"

The Senate of the University of London have resolutely determined to adhere to the recent amended clause in their charter, by which they throw open the degrees in Arts of the University to all candidates, without reference to the sources from which their education has been obtained. This step has excited much dissatisfaction and considerable remonstrance on the part of the Colleges which consider themselves injured by the alteration; but the reasoning adduced has not been sufficient to persuade the Senate to retrace their steps. To those who argue for the superiority of collegiate education, the Senate reply that the examination instituted by the University of London is the only necessary test of the competency of a candidate; and, while admitting the beneficial effect of collegiate discipline, the Senate consider that it is not indispensable. Our own opinion, which we have before expressed, is, that the recent changes will have very little effect either in injuring the Colleges or in adding to the reputation, already deservedly high, of the University; for if the latter maintain a high standard of examination, there is no doubt that the most successful candidates will be those who have studied in the Colleges, where the regularity of the discipline and the energy of established teachers will tend materially to prepare the mind of the candidate for the ordeal of examination; while if there should be a few stray persons who, either by solitary study or private tuition, should be able to reach the required mark, there can be no good ground for excluding them from their justly merited honours, by granting which the University will gain a character for liberality, without, perhaps, much increasing the number of its graduates.

A man has been convicted at the Lancaster Assizes of poisoning his wife, and has been sentenced to death. The evidence was circumstantial, as is usually the case in trials for administering poison. It appeared that the prisoner and his wife lived unhappily together, owing to religious differences; and it further appeared that the man came into the possession of a small sum of money from various burial-clubs on the occasion of his wife's death. He was proved to be in the possession of arsenic and tartar-emetic, and he gave no satisfactory reason for procuring these drugs. The woman was buried, but as, after the funeral, suspicions began to be entertained against the husband, the body was exhumed eleven days after death, and subjected to anatomical and chemical examination. As reported in the newspapers the results were not very satisfactory. It is said that nearly three-quarters of a grain of antimony, and about the two-hundredth part of a grain of arsenic, were found in the tissues. The quantity of tartar-emetic which the prisoner was proved to have procured was one drachm, and of arsenic, half a pound. He stated that he required the tartar-emetic to give to a horse, and the arsenic to kill bugs. Supposing the man to be guilty, as the jury have declared him to be, some curious points of a medico-legal character are open to inquiry. Did the woman die of poisoning by tartar-emetic, or of poisoning by arsenic? or of poisoning by both combined? If she died of poisoning by antimony, and if the whole quantity procured was one drachm, the case is singular, inasmuch as two and three drachms have been swallowed, under certain circumstances of disease, without any marked injurious effect. If she died of poisoning by arsenic, it is somewhat remarkable that only so small a quantity as the two-hundredth part of a grain of the poison was discovered in the body; but we do not attach much importance to this fact, because the vomiting and purging before death may have discharged the arsenic from the system; and recent experience has shown that a person may be poisoned by arsenic, and yet no trace whatever of the mineral may be discoverable after death. If the deceased was poisoned by the combined operation of tartar-emetic and arsenic, the prisoner must have exhibited a refinement of scientific villany, in weakening his victim by the administration of repeated doses of the former drug, before finishing his scheme by giving the more potent poison. The point which necessarily always weighs most heavily against the prisoner in such cases is the possession of the poison or poisons; and the failure on the part of the accused to account satisfactorily for obtaining deadly drugs, naturally makes a strong impression upon a jury. A prisoner is not bound to criminate himself, it is true; but he is quite at liberty to prove his innocence; and when a man buys arsenic by the half-pound at a time, it is very easy to show, provided the object were legitimate, for what purpose it was procured.

It is with deep regret that we announce the death of Dr. Marshall Hall, which melancholy event took place at Brighton, on the 11th inst. Dr. Hall had been labouring for some time before his death under a severe disease of the throat, attended with difficulty in swallowing. In Dr. Marshall Hall, the Medical Profession has lost one of the most distinguished Physicians of the present day, and science one of its brightest ornaments. As an original investigator, Dr. Marshall Hall is entitled to the highest praise, and his physiological researches place him in the same category with Harvey, Hunter, and Sir Charles Bell. Since the great truth developed by Sir Charles Bell, demonstrating the compound nature of the spinal nerves, no greater physiological discovery has occupied the scientific and Medical world than the theory of the reflex function of the nerves by Dr. Marshall Hall; and his name will be handed down to posterity as one of the most successful investigators of the phenomena of nervous action. Not only is the theory of the reflex function to be regarded as an important physiological truth, but it has led to the most valuable practical results in the diagnosis and treatment of disease: and many vital operations, both healthy and morbid, formerly inexplicable, now receive a satisfactory explanation in consequence of Dr. Hall's researches. It is to be regretted that the character of a man to whom science owes so much should have been obscured by peculiarities of temper and disposition, bringing down upon him, from many quarters, feelings of animosity which must have embittered some of the best days of his life, and which led to personal controversies unbecoming a philosopher.

REVIEWS.

Metropolitan Workhouses and their Inmates. Pp. 76. London: 1857.

This little book, which consists of a reprint of some articles which have appeared in a weekly newspaper, together with a short Appendix, is written with great moderation and good taste, and treats of a subject which must be interesting to all humane persons. The author, or authoress (for we almost suspect that a lady is the writer), claims for the old, and the very young, and the sick, and the infirm, a better mode of treatment than they at present receive in our Metropolitan workhouses, where the same measure of harshness is dealt out to those who have been reduced to poverty by misfortune and illness as to those who are idle and dissolute. The writer does not blame the Poor-law, but the mode in which the law is administered; and it is argued, that the presence and influence of ladies in the management of Workhouses would soften much of the rigour which at present exists, and would con-

tribute to the promotion of order and morality. Strong and very just censure is cast upon the common practice of employing old, inefficient, and worthless paupers as nurses to the sick; and a contrast is drawn between our English establishments for the poor, and those of France, where the duties of nursing are performed by the Sisters of Charity, and are performed well. The brutality and incompetency of the officials of Workhouses is also censured; the want of vigilant and efficient supervision on the part of the Poor-law Board is exposed, and it is urged that a great improvement would be effected; by the appointment, in the choice of Guardians, of gentlemen of education, instead of the persons who are too often delegated by the Parishes and Unions to superintend the administration of the law. The Appendix contains a letter from Mr. C. Kingsley, expressing an opinion that the permanency of office lately secured to the Union Surgeons will operate beneficially in improving the condition of Workhouses. The Medical Officers, no longer under the fear of dismissal if they speak the truth, will, it is anticipated, expose the evils under their observation, and thus lead to substantial reforms in Workhouse management.

Des Climats de Montagne considérés au point de vue Médical.
Par le Docteur H. C. Lombard.
On Mountain Climates considered in a Medical Point of View.
By Dr. H. C. Lombard.

The facilities for travelling have now become so great, that a considerable number of English invalids are induced in the present season to leave their home for a residence in a mountainous country, which circumstance affords an excellent opportunity of noticing the able work of Dr. Lombard on mountain climates. This gentleman was peculiarly possessed of the necessary acquirements for writing on the subject in question, on account of his vast experience, derived from an extensive Medical practice, more especially among those of our countrymen who have spent some time at Geneva (a), or who have passed through this town in search of a mountainous residence to restore their health.

The author having first alluded to the meteorological characters of mountain regions, gives an account of the physiological and pathological influence of alpine climates above 2000 metres (about 6000 feet); he examines in succession their effects upon the digestive and muscular organs, the circulation, and nervous system, and adds some very interesting facts respecting the physiological action of high mountains on the lower animals. The author then proceeds to describe the Medical properties of the atmosphere under 2000 metres, dividing the subject much in the same way as in the case of the higher regions; he concludes that the higher the patient rises the greater the tendency to inflammation, asthma, and hæmorrhage; that certain diseases, as phthisis, are prevalent between definite heights, and that diseases of the heart, chronic bronchitis, neuralgia, and chlorosis are comparatively frequent in mountainous countries.

In Chapter III. Dr. Lombard states the diseases that are benefited or increased by a residence in high localities; thus the mountain air will be found most beneficial in dyspepsia, chlorosis, and anæmia, chronic bronchitis when independent of heart-disease, and affections of the nervous system. It is certainly very remarkable that menstruation, when defective, should also be materially improved by a residence in the mountains; finally, the atmosphere of high regions is peculiarly beneficial in the case of children weakened by illness, who, after a few days, resume their strength and appetite. Finally, Dr. Lombard informs the reader of the most suitable mountain residence for the treatment of the various diseases above-mentioned, gives a most practical and interesting account of his subject, and has thus far considerably added to our Medical literature.

The Earth's Movement.—The Astronomer Royal, in his last annual report, refers to certain mysterious changes of level and direction of one of the instruments, one occurring with changes of temperature, the other at the equinoxes, and he imagines some movement of the earth itself to be the cause of these remarkable phenomena.

(a) Dr. Lombard had the honour of being Medical attendant to H.R.H. Prince Alfred during his recent residence at Geneva.

FOREIGN CORRESPONDENCE.

FRANCE.

[From our Paris Correspondent.]

Paris, 2nd August, 1857.

At the last meeting of the Academy of Medicine the long and interesting discussion upon the dangers of the use of chloroform, and the best methods for inhalation of anæsthetic agents, was concluded, after a speech from Professor Velpeau on that subject. It has been expressly decided that in the present state of disease we may or may not use particular inhalers. You remember that Dr. Devergie, who opened the discussion upon that question, asked whether the Medical men were not now professionally responsible for the deaths that occur in these cases when they did not follow certain rules for the inhalations. The Academy had then to decide upon the obscure and unsettled question of the use of particular instruments for chloroformisation. All the great Surgeons of the Academy came to a resolution against particular inhalers, on account of the difficulty of their use, and agreed upon the simplest method, of pouring the anæsthetic liquor upon a handkerchief, a compress, or a sponge. In fact such is the practice of almost all the Physicians in France.

The late and brilliant discoveries of C. Bernard upon the glycogenic power of the liver have overthrown the different explanations given formerly of diabetes. That disease was ten years ago principally indebted to chemistry for its theory, and the debt was acknowledged by pathologists. Two different chemical explanations were given by MM. Bouchardat and Mialhe; but both of them could not agree with the new hepatic function. In a scientific letter to Professor Cruveilhier, Dr. Bouchardat has just given his present opinions upon the nature of glycosuria. Some words upon that obscure subject will show the actual state of that great pathological question in France.

Upon the principles of Solidism, which prevailed in France under Broussais, there was no difficulty in explaining the phenomenon of diabetic urine. Carbon and water are the constituents of sugar, and these abound in the blood. A peculiarly modified action of the kidneys, as is seen in the mammary gland, may therefore combine them in such a manner as to result in the characteristic product.

According to humoral pathology it was admitted that the eliminated saccharine matter existed in the blood.

But in these two cases, by what process was it generated; under what chemical agencies was it supplied? Bouchardat thinks that different circumstances may account for the origin of that product in the living body; he reckons thus three sorts or forms of diabetes.

The first and more frequent form is the consequence of the exaggerated and irregular conversion of starch into sugar in the digestive tube. It may be considered, then, as produced by the following physiological phenomena magnified: that of boiled or disintegrated starchy food a considerable portion is turned into sugar by the saliva in its way to, and during its stay in, the stomach.

The second form of diabetes, according to Bouchardat, is the consequence of the exaggeration of the glycogenic function of the liver. In such cases starch is not the only element converted into sugar, but all the albuminized matters which may be turned into gelatine or chondrin, such as mock-turtle soup, calf's-foot jelly, and so on. That form of the disease accounts for the exceptional cases in which diabetic sugar is found in the urine, although such food is allowed to the patient which is not capable of conversion into sugar by the admixture of the secretions which by their union constitute saliva.

The third form of diabetes is the effect of an incomplete destruction of sugar in the blood, and peculiarly in the capillary vessels. Such cases account for the glycosuria of old age observed by MM. Dechambre and Reynoso some years ago. In that last form the quantity of sugar is very small, and the symptoms generally temporary.

I have given this account of the views of Bouchardat upon diabetes, because that writer is one of those who have best studied that disease in this country, who have seen the greatest number of patients, and proposed some good means of treatment.

It is known that a diet of animal food exclusively, such as was carried out by Rollo, is generally distasteful, and often becomes at length absolutely disgusting to the patient, and very few will be found who will not occasionally resort to other food. Some practitioners permit the use of bread; but as this contains a large proportion of starch it is obviously improper; and experience has shown that the animal diet with this latitude seldom becomes effectual. Bouchardat has proposed, in a prize paper printed in the Memoirs of the Academy of Medicine, to employ a bread made from the gluten of wheat flour, after the starch has been washed out. Experience has proved the value of this suggestion, as that of the alkaline treatment proposed by Mialhe.

Till now it must be, however, confessed that all our knowledge of the causes of this complaint was exceedingly vague and unsatisfactory. What is required now in the Medical history of diabetes is not that systematic division of the disease which Bouchardat has tried to make, like many other observers; we want a sufficient number of good observations, giving the history of the cases, with all their symptoms from the beginning to the end. Such is the opinion of our most accurate pathologists, and I believe the same sentiment to prevail in England. When that plan is followed throughout, then only shall we have a scientific and exact knowledge of that affliction which Arctæus called "Miraculum quoddam," and in which Dr. Marsh has stated that the earliest disturbance in the general health could be distinctly traced to some cause acting upon the skin.

PROVINCIAL CORRESPONDENCE.

IRELAND.

Dublin, August 12, 1857.

The trial of James Spollen, for the wilful murder of the late Mr. George Samuel Little, which occupied the last four days, terminated yesterday evening in the finding a verdict of "Not guilty." But little Medico-legal evidence was brought forward. Dr. Geoghegan was not examined as to the stains upon the razors and clothes submitted to him. Dr. George Porta repeated the evidence formerly given by him as to the nature of the wounds inflicted, the particulars of which are detailed in the number of your Journal for the 29th November last, page 554. Dr. Aldridge, formerly Professor of Chemistry in the School of the Apothecaries' Hall, was examined as to certain stains found upon some of the wood work in the passages adjoining Mr. Little's office. He stated that he had subjected these to the action of a number of tests, to that of dilute sulphuric acid among others, and that he had come to the conclusion that the stains were due to the presence, not of blood, but of vegetable colouring matter; Mr. Curran, counsel for the accused, asked Dr. Aldridge if he was aware that sulphuric acid had been found to be perfectly fallacious as a test for blood, and read to the jury an extract from a work in which the test was stated to be wholly fallacious. Dr. Aldridge pointed out that the learned counsel was confounding two distinct things, that sulphuric acid had been proposed some quarter of a century ago as a means of discriminating the blood of different animals, and that it had subsequently been found to be entirely unreliable in this respect; Dr. Aldridge added that his object on the present occasion was not to determine whether the stains in question were produced by the blood of this or that animal, but whether they were owing to blood at all or not; the stains had not been blackened by the acid, as would have been the case had they been blood, but had been removed by it, and he therefore inferred, from the action of this, corroborated by that of other tests, that the stains were due to the presence of vegetable colouring matter. On the announcement of the verdict, the prisoner, who had until then maintained his compo-ure, fell back in a half fainting condition.

I again feel the disinclination I formerly expressed to mix up extraneous matter with anything relating to the fearful tragedy which formed the subject of the investigation now terminated. I shall, therefore, restrict my present letter to what I have above communicated.

GENERAL CORRESPONDENCE.

ARMY MEDICAL DEPARTMENT.

[To the Editor of the Medical Times and Gazette.]

Sir,—In my last letter, which you published on the 1st instant, page 124, I referred to the expediency of effecting certain changes in the relative position and duties of Army Surgeons, calculated to improve the position of the really working officers of the service, to secure to them individually a greater degree of professional independence and responsibility, and thus to lead to greater efficiency in the professional treatment of the sick.

In further illustration of that subject, it is necessary I should adduce certain facts in the management of the largest of our Military Hospitals during the late war, to show the ill effects of the present system, under which many facilities were withheld from the executive army Surgeons, which, by necessity, were conceded to civilians; and, in fact, to contrast the effects of imposing on army Surgeons the control and restrictions of intermediate grades of Superintending Medical Officers, with the results of conferring upon the civil Surgeons the privilege of exercising their professional knowledge with comparative independence; subject, in fact, to no other supervision than that of the principal Medical officer. The two systems were tried side by side in the same Hospital, and under precisely the same circumstances, for a period of twelve months; and having had the daily opportunity to observe and compare the results, I feel it may be useful to lay them before the Profession.

In order that I may hold myself personally responsible for the accuracy of these facts, it is necessary I should confine myself to those which occurred under my own experience.

To avoid, as far as possible, all needless repetitions, I must refer to the substance of a former letter (June 20, page 626), in which I stated at length some of the glaring deficiencies which existed at Scutari as late as April, 1855, in regard to bedsteads, bedding, clothing, and medicines for the sick, at a time when a great abundance of those necessaries had long been in store in the same building. Those deficiencies had been permitted to grow up and continue under the full development there of the regular routine of the system. The requisitions which had been made by the prescribing Medical officers to supply the deficiencies had been entirely unheeded, from a cause which will presently be understood. It is, however, a rather remarkable fact in connexion with that subject, that among those who were more or less responsible for the state of that division of the Hospital were a 2nd Class Staff Surgeon, a 1st Class Staff Surgeon, a Deputy-Inspector-General, who was supposed regularly to inspect the wards, and the Inspector-General himself; the latter two officers living at the time in quarters within a few yards, and under the same roof. The explanation is, however, tolerably simple. It was required by a long-cherished rule of the service, that all requisitions made by executive Medical officers, should be approved and countersigned by the 1st Class Staff-Surgeon of the Division, though the latter, from not being in personal attendance upon the sick, could hardly judge so well as to their necessity. In the event of any obstacle occurring through the circuitous forms required, such as the absence of the 1st Class Staff-Surgeon, or by the document not passing through the proper channel, a great deal of confusion and misery were occasioned.

The executive officers had no power to make known their wants to the principal Medical officer; in fact, they were expressly forbidden to do so by an order that appeared in the Departmental Order-Book. This operated practically as a discouragement to the Medical officers in charge of wards from making known many facts that it was of the highest importance the principal Medical officer should have been acquainted with, at the same time without securing any compensatory advantage either as to economy or convenience; and what was of still greater consequence, it acted obviously to the disadvantage of the sick men. In support of this belief I may be permitted to state, without taking any credit to myself for the fact, that all the deficiencies which had grown up in my wards, under the regular system of the department, were immediately remedied, to the great benefit of the sick, by the direct communication which I, as a civilian, had the privilege of making to the principal Medical officer; and by

the power with which, as an independent executive officer, I was enabled to give full effect to my opinion on professional and sanitary matters, without any interference or any other supervision than that of the principal Medical officer.

Regarding the regulation for requisitions, it appeared to me that the due administration of the business of military Hospitals was greatly impeded by the want of direct representation to the principal Medical officer by the executive officers, of the condition of the wards, and the wants of the patients. To remove those obstacles, I consider that the rules of the service should not only permit, but encourage, direct communication between all executive officers and the principal Medical officer; so that by providing for explicit representation to him, the ultimate responsibility should be more distinctly limited. I also consider that every executive officer in charge of wards should be responsible in his own sphere of duty, and should possess the power to meet emergencies as they arise, with the sanction only of the principal Medical officer, to whom he should be fully responsible for the discretion and judgment with which that power was exercised.

From what has been already stated it will be seen that requisitions, or other representations of the wants of the patients seldom reached the principal Medical officer, without whose express authority the purveyors were often backward in issuing the necessary supplies. It will also be seen from the instances I have adduced, that "inspections" often failed to detect the most palpable deficiencies. If I were called upon to state my honest opinion on that point, I should say that, as far as my own observation extended, more care and anxiety were shown to exhibit *a clean outside*, than to secure the most skilful treatment of disease or the best sanitary condition of the wards.

In regard to the inspections which I witnessed, excepting only those after October, 1856, less examination was made of the diseases in the wards, of the length of stay of men in Hospital, and of the result of treatment in leading to recovery, or to the reverse, than of comparatively unimportant details, and matters of ordinary routine.

In order not to encroach too much on your valuable space, I will select from a mass of facts before me one or two of the most prominent, to show the further disadvantage to the sick soldiers, and to the service of the present unmeaning restrictions, which hamper army Surgeons in the discharge of their duties, through the intervention of the intermediate superintending officers, *i.e.* the 1st class Staff Surgeons. In my monthly report for July, 1855, which I had the privilege of sending direct to the principal Medical officer, I felt it my duty to add a special letter, calling his attention to the large number of broken windows in my wards, after repeated requisitions had been made for their repair. Many of the men had suffered severely from the cold and wet at night, blowing directly upon the heads of their beds, several beds having a window without a single pane of glass in it, within a few inches of either side. Although I had frequently shifted the men who suffered most to other beds, the patients newly exposed suffered in the same way. This will be more readily understood when I state that those patients were admitted into the Hospital with rheumatism, ague, dysentery, pleurisy, pneumonia, &c. The stay of those patients in the Hospital, at the time too when, by all accounts, they were much wanted at the front, was greatly prolonged by the exposure to which I have referred, and apparently on the ground of an expense not equal to half the daily cost of the men so detained in the Hospital. I therefore felt it my duty to represent the matter as emphatically as I could to the notice of the Inspector-General. The result was that the Inspector-General visited my wards in person, and having ascertained by the condition of the men that my complaint was well founded, the necessary directions were given, and within three days all the windows were mended, to the infinite relief of the men. The state of the windows over the whole Hospital was, however, pretty much the same; some better than in my wards, some infinitely worse. Those in my wards were, however, the only ones that were mended, even under the palpable evidence on all sides of the same want of repair. I was, therefore, forced to the conclusion that none of the army Surgeons would have been allowed the same immunity in making the earnest representations I had found imperative, or whose persistence even in such a direct matter of duty would have been otherwise than to their disadvantage; as, indeed, it subsequently proved to mine, though, not being in the service, I was not fairly within reach of the full measure of retribution.

In another instance the 1st Class Staff-Surgeon of the division to which my wards belonged, among other regulations issued orders to the wardmasters and orderlies to wash and scrub the floors of the wards on three fixed days in the week, and all the other woodwork on the alternate days, without reference to the opinions of the Surgeons in attendance on the sick, to the nature of the cases in the wards, or the state of the weather.

My attention was first drawn to the subject on the day this washing commenced by finding the floor round the beds of the sick men perfectly wet at 8 p.m., when I paid my evening visit. A single glance at the nature of the case would have convinced any one who really cared about the result of the Medical treatment, that such a proceeding was most injurious to the patients. The unfavourable effects of washing the floor of wards containing sick men in bed, and the damp engendered by the slow process of drying where there are no fires, especially in cases of ague, rheumatism, erysipelas, and pulmonary affections, are well known to all experienced Medical observers. The air by such means will not be sweet and dry, but loaded, close and damp, and the boarded floor becomes rotted with excessive ablutions. The practice is, moreover, expressly forbidden by the War-office Regulations, 1854, page 24. I therefore wrote an official letter to the Inspector-General, dated September 13, 1855, pointing out the ill consequences on some particular men, and requesting his attention and further instructions on the subject. He at once concurred in the inexpediency of the practice, and it was discontinued *in my wards only*.

The executive Medical officers in the other wards of the division did not possess the same power of appealing, without prejudice to themselves; and they therefore in no way shared the responsibility which attached to the proceeding. One of them remarked to me at the time that the result did not matter to him; he could only do his best, as far as he was permitted.

I should state that, from first to last, the eternal bucket and mop were not so ruthlessly employed in the other three divisions of the Hospital.

I cannot conclude these observations without calling attention to a point which has been repeatedly noticed by those interested in the Medical department of the Army, but hitherto without any perceptible results. I allude to the large numbers of returns, reports, accounts, and registers which are required by the present War-office regulations to be kept by Army Surgeons. Having given a good deal of attention to that subject, I consider a very material reduction and condensation of these might be made, without inconvenience to any other department of the Army. Space will not permit me to enter fully into the nature and variety of the returns and accounts required; but of those enumerated at page 36 of War-office Regulations, the 4th, 5th, 6th, 10th, and 11th might be advantageously transferred to the stewards and ward-masters of the Medical Staff Corps, who hold respectively the rank of sergeant-major and colour-sergeant; others, such as the 2nd, 3rd, 7th, and 9th, would naturally fall to the Hospital Registrar,—the appointment of such an officer, for that and other similar duties, having been already recommended.

In regard to No. 9 in these returns, my experience at Scutari would lead me to believe, that it can neither be necessary or useful to keep a *detailed history of every case of disease, with the treatment employed, and a daily entry of diets and extras.* I have frequently given up a great deal of time to these registers; but with the full conviction, at the time of doing so, that they would never be looked at, and that it was lost labour. It would be unreasonable to suppose that any principal Medical officer could wade through a daily register of such a mass of cases; yet for want of a judicious selection and condensation, a great deal of valuable matter has been allowed to run to waste. I would therefore recommend, that only such cases should be minutely registered as the Medical officer in charge, and the principal Medical officer should determine.

The cases so selected should be carefully registered by the Hospital Registrar, and, together with the other returns and reports kept by him, would prove of great value in supplying a continued series of Army Hospital Statistical Records.

The returns and reports that I would suggest should still be kept by executive Army Surgeons, are as follows:—

1. A letter-book, for the purpose expressed at p. 36, War Office Regulations.

2. A morning state of the sick in Hospital, and death reports, to be written out by the ward-master, and signed by the Medical officer in charge of wards.

3. A weekly report of the condition of the wards and the progress of cases, enumerating the admissions, discharges, the total number treated, the number remaining, and the prevailing diseases. This weekly report to be sent to the principal Medical officer for his examination, and then to be forwarded to the Hospital Registrar.

4. Daily Diet Rolls—to be filled up in figures by the ward-master and in words by the Medical officer in charge, and signed by him.

The chief advantage of these changes in regard to returns and reports would consist in this, that Medical officers would be spared a great deal of non-professional and unprofitable labour; by which means their exertions might be more concentrated on the direct management and treatment of the sick. At the same time, by providing for the due condensation, classification, and registration of Hospital returns and reports, a large amount of information of an infinitely more reliable nature than has hitherto existed would become available for the construction of Army Hospital Statistics. These changes would at the same time enable Army Surgeons to attend a far greater number of sick, and to better effect, than they can do under the present system. On the principle of the proper division of labour better results would follow, and the expenditure of the department in the end would be greatly diminished. I am, etc.

HENRY MORTIMER ROWDON.

29, Nottingham-place, August 12, 1857.

MR. ADAMS'S INSTRUMENT FOR ADULT VARUS.

[To the Editor of the Medical Times and Gazette.]

SIR,—Your Journal of this day contains a letter from Mr. J. Ferguson, the instrument-maker of Giltspur-street, in which he disputes my claim to the originality of the instrument for adult Varus, figured in my last lecture, published in your Journal of August 1, 1857.

Mr. Ferguson speaks at one time of my instrument as being *similar to*, and at another as a *modification of*, an instrument he made for Mr. Tamplin in 1850. Now, Sir, I am quite ready to discuss with Mr. Tamplin the question of the originality of my instrument, in reference to the principle of its construction upon the pathological anatomy of talipes varus; but I do not think it fitting to discuss this question with Mr. Ferguson, who may be supposed by some to be a good maker of instruments, but, having no anatomical knowledge, cannot be supposed capable of appreciating the contrivances, as adapted to the anatomical conditions of the deformity. Whether Mr. Tamplin should accept this invitation or not, allow me to invite any of your readers to examine both the instruments referred to, at the Royal Orthopædic Hospital, with me any Wednesday afternoon, from two till half-past four o'clock, when it will be an easy task for me to demonstrate that the two instruments differ essentially in all the leading principles of their construction, so that they can scarcely be said to present one feature in common. I still claim, therefore, the complete originality of the instrument to which I have attached my name.

In reply to Mr. Ferguson's statement, that "Mr. Adams has not made any allusion to the original instrument," allow me to add, that I have described it in the first part of my last lecture, published in the *Medical Times and Gazette*, July 18, 1857. I am, &c. W. ADAMS.

Henrietta-street, Cavendish-square.

[To the Editor of the Medical Times and Gazette.]

SIR,—As the anatomical mechanist employed by Mr. Adams to construct his new instrument for adult Varus, I cannot allow a letter which appeared in the *Medical Times* of last week to pass without offering some remarks upon the assertions therein contained.

It states that the same kind of apparatus was made in 1850 under Mr. Tamplin's direction, and found upon trial to be perfectly unnecessary and useless.

If your readers will refer to the *Medical Times* of August 1, they will find a diagram illustrating the form and action of Mr. Adams's instrument, and see that it consists of four cog-wheel centres, three of which are established anterior to that corresponding with the axis of the malleoli. It has also a divided shoe-piece, the anterior portion of which embraces the plantar surface of the metatarsus, and the posterior affords a resting point for the os calcis. In addition, it is affixed to the leg by a trough hinged at the knee, and the whole possesses suitable straps for its attachment to the limb. It will also be ascertained from the description given that three of these centres act *solely* upon the anterior two-thirds of the foot, while the fourth is applied for its restoration after assuming the condition of equinus.

Having carefully investigated the above, your readers will certainly find no similarity in it with that which Mr. Ferguson mentions in his letter, the latter being in form a Scarpa shoe, with two racks placed *above* the ankle-joint, and a stiff trough surrounding the leg and thigh.

I am, &c. HENRY HEATHER BIGG.

29, Leicester-square, August 10, 1857.

SPONTANEOUS FRACTURE OF THE HUMERUS.

[To the Editor of the Medical Times and Gazette.]

SIR,—Having read the interesting cases of spontaneous fracture of the humerus, and Mr. H. Smith's remarks upon them, contained in two recent consecutive numbers of your journal, I venture to forward you a short quotation from an essay of my own, in which I treated this subject at some length, and which is unpublished (and therefore I quote it with the less hesitation), but on which the Senate of the University of Edinburgh was pleased to confer a token of approbation.

"'This bone is more frequently broken than any other by the action of its own muscles,' thus speaks Liston (alluding of course to the true skeleton only, for if the sesamoid bones were included in the estimate, the patella would take long precedence in the order of liability, but this accident ranks most naturally with ruptured tendons), and the assertion is in accordance with the observations of Sir Astley and Samuel Cooper, Dupuytren, Malgaigne, and I believe every authority who has expressed an opinion on the subject in his writings. The statement would be far more correct if we were to exclude those cases of spontaneous fracture in which there was previous disease of the bone, for as to a healthy long bone breaking by the mere force of its attached muscles, I have not been able to meet with a single recorded instance of such an accident, except in the case of the humerus, of which I have found recorded nearly fifty well-authenticated instances. These were chiefly collected from English, French, and American periodicals. Those mentioned in special treatises cannot be depended on numerically, as the same cases are often cited by different authors, and when names are not given, they can only be identified as cases already counted by some of the attending circumstances.

"Two given by Lonsdale, and eight at least of those given in French works have been produced in exactly the same way, viz., by the practice of a game in which the professed object is to try which of two individuals has the strongest arm. Having seated themselves face to face, the players place their right forearms together elbow to elbow, and ulnar side to ulnar side; then interlacing the fingers, try which can bend the other's arm outwards. In cases of this particular accident observed by Caffort, Debeaumarchief, and Malgaigne, the fracture occurred at six to eight centimetres above the condyles, the fragments remaining *in situ*. The contending muscles are evidently the pronators and flexors of the fingers on the one side, striving to maintain the required relation of the fingers and forearm to the arm, at the same time that the upper part of the bone is far more powerfully drawn inwards by the large muscles inserted into the bicipital groove. Blows of the fist failing to strike their intended object, and violent jerks of skittle or other balls are the most common causes determining this fracture in England. Cheselden, Hunter, Houston, Cooper, and Lonsdale give illustrations of the former of these causes.

"We might have inferred the probability of this inferiority (so to speak) of the humerus, compared with other bones, even though it had not been demonstrated by experience, if we had taken into consideration the light, slender, and unsupported character of the humerus, by which it is adapted for its varied, free, and rapid movements, in connexion with the transverse direction and powerful action of the muscles

by which these movements are effected, though this very freedom of motion often saves it from an impending danger which the lower limb has not time to avoid, and thus makes ordinary fracture of this bone of much less relative frequency than it would otherwise be."

I also gave several instances of spontaneous fracture which have come under my own notice. In all, however, there was good reason for doubting the previous soundness of the tissue. I am, &c. JAMES TURLE.

Boundary-road, St. John's-wood, August 11, 1857.

[To the Editor of the Medical Times and Gazette.]

SIR,—Mr. Henry Smith's cases of fracture of the humerus by muscular action recall to my mind a case which I witnessed, December 28, 1833, when I was a student only six months in the Profession, and of which I possess such notes as so young a student might have taken, and from which I collect the following memoranda, thinking that they may be of sufficient interest for a place in your Journal.

Cabb Gething, whilst at his work as a collier, in the Rounds Green Colliery, had a large mass of coal fall on his right foot, which was placed in advance of his body. The foot was wedged between the piece of coal and the surface, and immoveably fixed there. In order to extricate himself, he made a violent effort, and in doing so fractured the femur, and at the same time produced a compound dislocation of the first metatarsal bone. My notes say, "It was a compound dislocation, with the bone projecting through a most frightful wound on the top of the foot. There was also a large lacerated wound along the bottom of the foot, extending from the root of the toes to the heel." "Mr. Robert (my late master) proceeded to reduce the fractured thigh, and then reduced the dislocation." Extensive sloughing of the integuments of the foot ensued, and two of the metatarsal bones were eventually removed. The wounds of the foot ultimately closed, and the part become so sound, that he walked with a high-heeled boot.

I have a very distinct recollection of this case. I remember some years after the accident meeting Gething. He was in perfect health, walked along nimbly, and had long resumed his perilous occupation. At the time of the accident he was a finely-developed healthy young man, of about twenty-one. The clear history the man gave of the manner in which the accident happened left no doubt as to the way in which it had been caused. I am, etc.

JOHN H. HOUGHTON,
Surgeon to the Dudley Dispensary.

Dudley, August 4, 1857.

GLASGOW POISONING CASE.

[To the Editor of the Medical Times and Gazette.]

SIR,—In the chemical evidence at this trial there was an opinion given, which, though of no importance in the case, indicates the existence of an erroneous doctrine amongst chemists, that may lead to serious error, and should therefore be corrected.

The opinion I allude to is contained in the second conclusion drawn by Dr. Penny from his detection of arsenic in the solid viscera, viz., "that the arsenic must have been taken by, or administered to him while living."

This inference is no doubt founded on the doctrine that the arsenic could only get into the tissues by being absorbed, and that absorption is a vital process, and could only take place during life.

In a case which occurred in the county of Armagh, in 1849, similar evidence was given, destroying a defence, founded on certain appearances of the body, that the man had died from natural causes, and arsenic had afterwards been injected into the stomach.

That the doctrine in question is erroneous, will at once be admitted by every one who bears in mind the tendency of miscible fluids, separated by porous substances, to become mixed—the so-called process of "endosmosis."

However, as it has been adopted both at trials and in books on poisons by authorities of high reputation, I determined to subject the matter to actual experiment; and accordingly I injected into the stomachs of dead animals solutions of arsenic, and after a time examined the tissues, when I found the poison not only in the heart, lungs, liver, and kidneys, but even in the muscles of the extremities.

An account of these experiments was published in the *Dublin Quarterly Journal of Medical Science*, for August, 1850.

Cases in which this question can be of any importance must be very rare, but in almost all the poisoning cases of late years the Chemists examined have rather exceeded their duties in their reliance on this doctrine, and have expressed opinions similar to that of Dr. Penny.

The importance attached to Medical evidence renders it the more necessary to eliminate all possible sources of error, and this will I hope be a sufficient excuse for trespassing on your valuable space. I am, &c. G. H. KIDD.

Dublin, 12th August, 1857.

PARLIAMENTARY INTELLIGENCE.

HOUSE OF LORDS.

SALE OF POISONS.

Lord CAMPBELL asked the Lord President of the Council what the Government intended to do in reference to the Bill relative to the improper sale of poisons? The Bill had been referred to a select committee, who had laboriously investigated the subject, and obtained important information, founded on which certain amendments had been introduced into the Bill. He wished to know whether the noble earl intended to proceed with the Bill during the present session, or whether it would stand over for consideration until the next session?

Earl GRANVILLE said that the select committee had given most patient attention to the Bill, and had amended it in several particulars. It would, however, be useless to attempt to proceed with it at that period of the session, and he thought some advantage would be gained by the Bill being printed and circulated in the country during the recess.

HOUSE OF COMMONS.

SMITHFIELD.

Sir J. SHELLEY asked the Chancellor of the Exchequer whether the Government would, as far as they had the power to do so, insist upon the area lately occupied by the market in Smithfield being preserved as an open space.

The CHANCELLOR of the EXCHEQUER stated, in reply, that some time ago the Corporation of London submitted to the Government certain plans for the erection of a dead meat-market upon a portion of the site in Smithfield. The Government did not give their assent to those plans, and the matter was referred back to the corporation, in order that they might prepare some other plan which the Government could approve. Considerable delay had since taken place, but he expected to receive a communication from the corporation before long.

IRISH LUNATIC ASYLUMS.

Mr. COGAN asked the Chief Secretary for Ireland whether he could state when a report might be expected from the Lunatic Asylum Commissioners of Inquiry; and, further, whether it was intended to suspend or to prohibit all improvements or required alterations in the existing asylums until this expected report was published?

Mr. HERBERT replied that he had received a letter from the secretary of the commission, stating that there was no probability of the report being ready before the close of the year. It was not intended to stop any necessary alterations or repairs in existing asylums, but no costly works would be allowed to be proceeded with.

Colonel NORTH wished to know if the Government had arrived at any decision with regard to a memorial which had been addressed to the War Department by the Surgeons connected with militia regiments. In that memorial those gentlemen complained, and, as he thought, most justly so, of the remuneration which they received, and also that in the inspection of recruits and duties of that nature they were only allowed to act when a medical officer of the regular army was not present. The next point with respect to which the Militia Surgeons complained was the difference which existed between the allowance made for the examination of recruits for the line—which was 4s.—and that made in the case of recruits for the militia, which amounted to only 2s. 6d. per man. They also complained that while they received no pay for the

examination of recruits beyond the number of six, the civil practitioner was remunerated at the rate of half-a-crown a-piece for the first eight, and 1s. for every recruit beyond that number. These were matters in reference to which he hoped his hon. friend, the Under Secretary for war would be able to give some satisfactory explanation to the committee.

Sir J. Ramsden said the subject to which his hon. and gallant friend had called the attention of the committee was one which had received the careful consideration of the Government. The result of that consideration had been that it appeared to them no good reason had been assigned why the allowances of the Militia Surgeons should be increased. With regard to the difference which prevailed between the pay of those Surgeons and civil practitioners in the case of the examination of recruits, he thought the committee could not fail to be of opinion that the limit of 20s., beyond which the pay for such purposes of the former could not rise in a single day, was one which it was desirable to fix upon, inasmuch as if no limit were prescribed their receipts might in the course of a day, owing to the great number of volunteers who might present themselves for examination, amount to several pounds. The question of employing Militia Surgeons to perform the Medical duties which were required to be discharged in the case of military detachments, was one in relation to which a communication had been made to the Commander-in-Chief, asking him whether in his opinion it would not be expedient to issue an order directing that in all cases in which the assistance of a Medical officer was needed by the troops of the line, there being no Surgeon of the line at hand, the Militia Surgeons should be employed in preference to the civil practitioners. To that communication, however, sufficient time had not elapsed to admit of any definite answer being returned. In reply to the question of his hon. friend behind him (Mr. Ridley), he had to state that the Government were disposed to put an end as far as possible to the system of billeting, inasmuch as they believed it to be very much opposed to the feelings of the country generally, as well as injurious to the efficiency of the militia itself. (Hear, hear.)

Colonel North said he could not understand why so great a difference should prevail in reference to the remuneration for the examination of recruits as that which existed between the pay of the Militia Surgeon and the civil practitioner.

Sir J. Ramsden observed, that the reason why no limit had been fixed in the case of the latter was that the duties which he was called upon to perform in the examination of recruits were considered to be out of the ordinary course of his profession.

Lord Burghley hoped the Government would recognise the necessity of making the Militia Surgeons some allowance to provide themselves with quarters in those towns in which they were engaged in attending upon military detachments.

Mr. Adams thought the Militia Surgeons were entitled to consideration at the hands of the Government upon the ground that during the late war many of them had been employed in doing garrison duty, and had in consequence lost their private practice.

Mr. Henley expressed a hope that the Government would reconsider the question of remuneration.

Lord C. Hamilton believed that the difference in payment between the Medical examination for the militia and that for the line was not framed upon the theory that the militia was an inferior force, but because a subsequent and independent examination was required for the line.

Colonel Williams hoped that the grievances of Militia Surgeons would receive the favourable consideration of the Secretary at War. A great many Surgeons threw up their private practice when the militia regiments were embodied, who at the close of the last war were thrown upon their own resources.

Colonel Gilpin said that the Government were about to increase the duties of the Militia Surgeons, and if they thought proper to put them upon the same footing as the Surgeons of the line with regard to the payment for medical examination of recruits he should offer no objection. But he believed that the Government had treated the Militia Surgeons with great liberality. (Hear.) They were told that when their regiments were disembodied no claim would be admitted unless they had served 10 years, and yet they received a whole year's pay. Let the committee contrast that liberality with the treatment of the paymasters, who received only three months' pay, although their responsibility did not cease with the disembodiment of their regiment. (Hear.)

Sir J. Ramsden said, that with regard to the allowances granted to Militia Surgeons, he could only say that all the information he had been able to obtain, showed the present position of a Militia Surgeon to be one that was much coveted. It was not merely the actual amount of the allowance that had to be considered, but an indirect advantage was realized by Militia Surgeons. Service in that force had in many instances proved the very best introduction they could have to a general practice. The Government, therefore, did not feel justified in calling upon Parliament to increase the remuneration of this class of officers.

MEDICAL NEWS.

Apothecaries' Hall.—Names of gentlemen who passed their examination in the Science and Practice of Medicine, and received Certificates to Practise, on Thursday, 6th August, 1857:—

Balding, Charles Culledge, Barkway, Herts.
Brayton, Jonathan, Cumberland.
Burrows, Robert Thos., Westbourne Park-place.
Carter, Henry, Gloucester.
Chartres, John Smith, London.
Garbutt, John Mitchell, Dimston Lodge, Gateshead.
Nixon, George Forbes, Wigton, Cumberland.

DEATHS.

Ayre.—On the 8th instant, at the Grove, Hackney, John Ayre, M.D., aged 78.

Couper.—We have to announce with regret the death of Dr. William Couper, Professor of Natural History in the University of Glasgow, which took place at his residence, Lochbrae Cottage, New Kilpatrick, on Tuesday week. Dr. Couper was nearly 70 years of age, and we believe, had for a considerable time been in feeble health. On Sunday he suffered a severe attack of paralysis, which rendered one of his sides powerless, and completely deprived him of speech, and in this prostrated and sad condition he continued till he expired on Tuesday. Dr. Couper was connected with the University of Glasgow for more than a quarter of a century, and was distinguished not only for his talents as a Professor and a man of learning, but for his polite and gentlemanly demeanour, his mild disposition, and kindliness of heart. Dr. Couper was unmarried.

Gilthorpe.—On the 4th instant, at New Snenton, John Gilthorpe, Esq., Surgeon, aged 82 years.

Hall.—On the 11th instant, at 37, King's-road, Brighton, aged 67, Marshall Hall, Esq., M.D. Edin. 1812; F.R.C.P. 1841; F.R.S.; Member of the Institute of France, etc.

Martland.—On the 4th instant, suddenly, at Blackburn, Lancashire, Robert Thomas Martland, M.D. Edin. 1845; M.R.C.S. Eng. and L.S.A. 1846; aged 33.

Robertson.—On the 6th instant, at Stepney, Thomas Storm Robertson, M.D. St. And. 1844; M.D. Giessen, 1842; M.R.C.S. Eng. 1832; F.R.C.S. (exam.) 1845; L.S.A. 1831.

Fatal Poisoning by Mistake—Mr. W. W. Munekton, coroner for West Somerset, held an inquest at Hartrow-manor, near Taunton, on Friday last, on the body of Mrs. Anne Escott (relict of the late Mr. Bickham Escott, formerly M.P. for Winchester), who died on Wednesday from poison administered by herself in mistake for a dose of medicine. It appeared that the deceased had been ill for several days, and was attended by Mr. Henry, a surgeon of Stogumber, who found her suffering from fever, and prescribed for her accordingly. On Wednesday morning a bottle containing solution of acetate of morphia (which Mrs. Escott was in the habit of taking in small doses occasionally) stood on the mantelpiece in her bedroom, close by the medicine bottle, which was the same kind of phial as that containing the morphia; and in the absence of the nurse the deceased took a quantity of the latter, thinking she was taking the medicine as prescribed. The unfortunate lady discovered her error immediately, and as the servant entered the room deceased cried out, "Oh! I

have taken the wrong medicine." Mr. Henry, who happened to be in the house at the time in conversation with Miss Escott, was summoned to the room, and he applied the stomach-pump, emetics, etc., but without effect, and the patient gradually sank and expired in a few hours. The jury returned a verdict to the effect that the "deceased died by poison taken by herself in mistake."

THE CUTTING-OUT AFFAIR IN CHINA.—Mr. Magrath, Assistant-Surgeon of the Inflexible, was wounded in this affair while serving in the boats of his ship, but not severely.

REAL IMPORTED PORT. — A CAUTION TO WINE DRINKERS.—A great sensation has been caused at Oporto by the discovery of extensive frauds in the wine trade. It appears that mixtures to represent port wine are manufactured in England and Hamburg, and sent out in ships to Oporto, when, by means of falsified certificates, the mixtures are imported into England as port wine. About 3000 pipes of these mixtures are now in London. Ten pipes of the mixtures have been seized by the customs at Oporto on board a ship from England. The captain declared he had the pipes on board merely to give the wine the benefit of a sea voyage. The mixture has been tested, and found to be a composition of bad alcohol, molasses, and the essence of tar! The Portuguese authorities refuse to give up the ten pipes. There can be no doubt but that they would have been imported into England and sold as the veritable production of the Douro shipped at Oporto.

LUNATIC ASYLUMS IN IRELAND.—The eighth report on the district criminal and private lunatic asylums in Ireland has just been published as a blue-book. It appears that on the 31st of December last there were at large in Ireland 1179 lunatics, 4262 idiots, and 2171 epileptics, making a grand total of 7612 at large, of whom 4222 were males and 3390 females. The total number of lunatics and idiots in Union workhouses at the same date was 1729. In addition to the 7612 lunatics, &c., at large, there were 6520 insane patients located in public and private asylums, making a total of 14,141 against 13,493 in the preceding year. Education appears to be in a much higher ratio among lunatics than in the community at large. The proportion of literate to illiterate in the general population of the country is 53 per cent. Love appears to be a far more fertile source of the disease of insanity than religion, falsely so called. The practice of committing lunatics to prison under a peculiar Irish Act (the 1st of Victoria, chap. 27) is reported against, as having been productive of great inconvenience: and the abuse appears to be on the increase. Cases of "moral madness" are very common in these asylums, especially among the women. One of the lady patients, when at large, "spends her allowance in one continued orgie of drink and dissipation." There are some curious cases of religious despondency; one of these refers to an elderly lady, who labours under the very agreeable delusion that she is "bodily impregnated" by the devil in every part, and that she is doomed never to die. The commissioners recommend, in conclusion, that the existing asylums, fully repaired and made thoroughly efficient in every respect, should be constituted Hospitals for the treatment of mental disease in its early and more curable stages, as well as receptacles for lunatics, no matter how hopeless their recovery, but who, for their own or the public safety, require a constant and careful supervision.

MEDICAL RESPONSIBILITY AS RULED BY AMERICAN JUDGES.—Judge Minot, of Pensylvania, lays down the following rules as applicable to Medical practitioners:—1. The Medical man engages that he possesses a reasonable degree of skill, such as is ordinarily possessed by the Profession generally. 2. He engages to exercise that skill with reasonable care and diligence. 3. He engages to exercise his best judgment, but is not responsible for a mistake of judgment. Beyond this, the defendant is not responsible. The patient must himself be responsible for all else: if he desire the highest degree of skill and care, he must secure it himself. 4. It is a rule of law that a Medical practitioner never insures the result. Judge Sargent, in a recent case occurring in Strafford County, N. H., thus charged the jury:—The law requires of a man who offers his services in any profession, three things:—That reasonable degree of learning, skill, and experience, ordinarily possessed by others of his Profession; reasonable care in the treatment of the case committed to him; and the exercise of his best judgment in cases of doubt. Judge Story defines ordinary diligence and care, to be that degree of care which men generally employ in their own concerns. All engage for the exercise of ordinary care in a profession. A Physician does not engage to warrant and effect a perfect cure. The rule is, where both parties are benefited by a contract, they should use such skill and diligence as men of common prudence employ: not such as belong to very prudent or skilful persons. Few cases of Surgery are alike, and judgment is required in the treatment of them. The law does not require freedom from errors of judgment. The employer has to exercise judgment, too, in the selection of the professional man; and in cases of reasonable doubt, none are held responsible for errors in judgment, nor for mistakes committed with ordinary care and skill. Now, diseases are rendered different by influences of character and habit, and by constitutional and natural causes. When the jury are satisfied of reasonable skill and care, that is sufficient. To show the want of skill, and negligence, it is never enough to show that the Physician has not treated in that mode, nor used those measures, which in the opinion of other Medical men the case required. This alone is not evidence of want of skill and care. The plaintiff must go farther, and show that defendant had not the requisite qualifications, or did not use them.

VITAL STATISTICS OF LONDON.

Week ending Saturday, August 8, 1857.

BIRTHS.

Births of Boys, 736; Girls, 753; Total, 1489.
Average of 10 corresponding weeks, 1847-56, 1455·2.

DEATHS REGISTERED DURING THE WEEK.

Causes of Death.	In the Week ending Saturday, Aug. 8, 1857. Deaths of Persons. AT ALL AGES.	Under 20 Years of Age.	At 20 and under 40 Years of Age.	At 40 and under 60 Years of Age.	At 60 and under 80 Years of Age.	At 80 Years of Age and Upwards.	Averages of Temperature and Deaths in 10 Weeks.
Mean temp.	° 65·2						° 62·9
ALL CAUSES	1224	739	146	142	157	40	1217·3
SPECIFIED CAUSES	1223	738	146	142	157	40	1211·7
DISEASES:—							
1. Zymotic Class	461	388	19	17	34	3	506·3
2. Dropsy, Cancer, and others of uncertain seat	38	4	8	13	9	4	42·5
3. Tubercular Class	184	86	59	33	6	..	189·1
4. Of Brain, Nerves, etc.	105	50	11	18	23	3	110·1
5. Of Heart, etc.	42	7	13	9	13	..	32·5
6. Of Respiratory Organs	74	35	5	15	16	3	81·1
7. Of Digestive Organs	74	32	9	20	12	1	70·5
8. Of Kidneys, etc.	10	1	4	1	3	1	11·7
9. Of Uterus; viz. — Puerperal Disease, etc.	5	..	4	1	..	..	7·5
10. Of Joints, Bones; viz.— Rheumatism, etc.	7	1	2	1	2	1	7·7
11. Of Skin, etc.	3	2	..	1	..	..	1·6
12. Malformations	3	3	..	..	..	..	3·0
13. Debility from Premature Birth, etc.	42	42	..	..	..	..	32·4
14. Atrophy	63	52	..	..	11	..	39·0
15. Age	48	..	..	..	24	24	36 4
16. Sudden	8	4	3	1	..	..	5 7
17. Violence, Privation, etc.	56	31	9	12	4	..	34·6
CAUSES NOT SPECIFIED	1	1	..	..	..	..	5·6

METEOROLOGY.

From Observations at the Greenwich Observatory.

Mean height of barometer	29·704 in.
Mean temperature	65·2
Highest point of thermometer	88·0
Lowest point of thermometer	54·3
Mean dew-point temperature	56·3
General direction of wind	S.W.
Whole amount of rain in the week	0·85
Amount of horizontal movement of air in the week	355 miles

DEATHS IN SUB-DISTRICTS FROM EPIDEMICS.

	Population. 1851.	Measles.	Scarlatina	Hooping-Cough.	Diarrhœa.	Cholera.	Typhus.
West	376,427	..	3	7	52	11	12
North....	490,396	1	6	11	50	5	16
Central ..	393,256	4	5	6	30	4	2
East	485,522	8	12	10	56	5	7
South	616,635	1	6	4	70	5	11
Total..	2,362,236	14	32	38	258	30	48

DEATHS.

	Males.	Females.	Total.
Deaths during the week	614	610	1224
Average of the ten years 1847-56	...	...	1217
Average corrected to increased population	...	...	1339
Corrected average for corresponding week in ten years 1847-56	616·9	600·4	1217·3
Deaths of people above 90	...	...	5
Deaths in 13 General Hospitals	27	21	48

BOOKS RECEIVED.

The Non-Restraint System of Treatment in Lunacy. By Robert Gardiner Hall, F.S.A. London. Longman and Co. 1857.

Journal für Kinderkrankheiten. Mai and Juni. Erlangen. 1857.

Eighteenth Annual Report of the Registrar-General of Births, Deaths, and Marriages in England. 1857.

Manual of Technical Analysis. By Dr. P. A. Bolley and Dr. Paul. London: Bohn. 1857.

The Handbook of Idiotcy. By James Abbott, M.A. London: Orr and Co. 1856.

An Elementary Course of Botany. By Arthur Henfrey, F.R.S. London: Van Voorst. 1857.

TO CORRESPONDENTS.

Mr. Norris F. Davy.—The Report will be acceptable.

Mr. Christopher Heath.—The communication from King's College Hospital arrived last week after our Journal had been published.

Dr. Henry C. Rose.—The insertion of the paper has been delayed only in consequence of the crowded state of our columns. It will appear very shortly.

An Enquirer.—The Royal College of Surgeons give the diploma of Fellow to Members of the College, under certain circumstances, without obliging them to undergo a second examination. The fee is £10 10s.

The following remarks sent by a Correspondent, on the Formation of a Horse, may, perhaps, interest some of our readers :—

"Concerning the formation of a horse, experience (not books) has taught me the importance of the following particulars. It should be wide between the ears, the forehead broad, eye large and prominent, lip compressed, nose straight and tapering, blade bones large, and larynx open. Neck round and strong, vertebræ long, windpipe short, scapula set back and long and round at the top, and deep or thick between scapula and scapula. Legs set on very forward, consequently light points to the shoulders. Arms long, knee pans large and straight. Short from the knee to the pastern joint, and the head of the bone to be well inserted into that joint, which will make the angle of forty-five degrees the true inclination: the same inclination to the point of the foot. Strong wall to foot, with an open high heel. Elbows easy from the body, so that by raising the leg you can insert your hand. Backbone large, which you can ascertain by feeling at the root of the dock. Ribs set high in the backbone, the ribs of a horse (not a mare) round, not very deep, the shape of a barrel, open from the ribs to the hip. Long from hip to hock, perfectly straight from the top of the hock to the top of the pastern, the same angle in the hinder pastern, viz., forty-five degrees as in the fore pastern. The head of a horse I like lean and long, and rather large, but not fleshy, the head of a mare small, light, and airy looking."

Erinensis draws our attention to the following *morceau* extracted from an Irish newspaper. We do not know anything of the person who signs the address; but he speaks so well for himself that he requires no introduction on our part :—

"Justicia : Meritumque Triumphabit.—Kind friends and the public—During the illness of the late illustrious Medical Reformer I felt I was not justified in making any encroachment on his practice. It has been self-evident he gained public confidence, and realised some thousands yearly (and justly so); and I now feel proud to say, I triumphed for the past twelve years, following in his footsteps, and achieved, with him, that victory, in establishing the present system, and denouncing the drenching and dragging system. The public will now naturally analyse the aspirants to this practice, and will ask themselves—Is it age, without qualifications?—is it standing, without experience in practice? For what are qualifications, if not from the proper Colleges? and what is a nominal professional standing, if not tested by experience in practice? and any man ever having practice must be known to the public; and I now ask, who can deny my professional education? and who can deny, when at the College of Surgeons with hundreds of pupils, I was *second to none?* and who can deny my capabilities when a Lecturer and Teacher? and who can deny my tested practical experience as to diagnosis and treatment, not in one, but in the various branches of my profession for the past twenty years in this city. Returning you, my kind Friends, my grateful thanks, and hoping a continuance of your support, with that of the Public, I have the honour to be, your obedient Servant, T. S. Palmer, M.D."
"32, Merrion-square, North."

Mr Thomas Richardson, Birmingham.—We are not aware that Medical Practitioners, holding a British Diploma or Licence, are entitled to sue in the Law Courts of the United States of America for charges for medicines and attendance. In France and Germany they certainly are not, unless they receive a licence to practise from the local authorities. A person holding a Medical or Surgical Diploma from an American College is not legally entitled to practise in this country, and cannot therefore sue for the amount due to him for medicines and attendance. The only plan open for a person so situated is to pass one of the Licensin Boards in this country, and we believe that every facility would be afforded him for doing so.

A Constant Reader.—The temperature of ice is the same in all climates and under all circumstances.

Sussex.—Our impression is that there are such cases on record, and that an action could be maintained under the circumstances described. We should recommend our Correspondent to apply to a respectable solicitor, and to be guided by his advice, after explaining to him all the features of the case.

Mr. W. Lukyn, Nottingham.—The details of the contrivance are too technichal for insertion in the pages of a Medical Journal.

Mr. W. Adams's Letter on the Removal of Loose Cartilages is deferred until next week, from want of space.

A Regular Reader.—Yes; but you must produce a certificate from the practitioner in question.

King's College, Aberdeen.
TO THE EDITOR OF THE MEDICAL TIMES AND GAZETTE.

Sir,—Among the list of successful candidates for the degree of M.D. at King's College, Aberdeen, my name is spelt *Reeves;* will you be kind enough to correct this small error, by allowing me to subscribe myself
St. George's-place, Camberwell, J. F. Reeve, M.D.
August 12, 1857.

Errata.—In No. 370, for Saturday, August 1, in reference to Dislocations of the Cervical Vertebræ, at page 114, col. 2, 11 lines from bottom, after the words "odontoid process" insert "to." At page 115, col. 4, Case 17, for "Medical Gazette" read "Gazette Medical." Col. 5, 19th line from bottom, after the words "rested on" insert "one of the stairs." Col. 7, 23rd line from bottom, for "joints" read "points." At page 116, col. 4, 4th line from bottom, for "1852" read "1850."

COMMUNICATIONS have been received from—
Mr. Charles Heath; Mr. Theodore Lens; Mr. Charles Williams; Mr. Norris F. Davey; Mr. J. J. Fox; Mr. J. H. Houghton; Mr. T. Wharton Jones; Dr. Robert Lee; The General Board of Health; The North Stafford Infirmary; Dr. Marcet; Sussex; Mr. W. Adams; Mr. T. Holmes; Mr. Henry Heather Bigg; Mr. Price Jones; St. Mary's Hospital; A Constant Reader; An Enquirer; Mr. James Abbott; Mr. James Turle; Mr. A. H. Dolman; Mr. West, Birmingham; Mr. Eagland, Hull; Mr. Heath; Mr. Dolman, Derby; Mr. G. H. Kidd; M. Paget; Dr. Child; Mr. Skinner; A Regular Reader; D. J. F. Reeve; Mr. J. Quinton; Mr. J. McKenzie; Mr. R. Davis; Dr. Althans; Mr. C. Greig; Mr. W. Williams; Dr. A. Ross, F.G.S.

APPOINTMENTS FOR THE WEEK.

15. *Saturday (this day).*

Operations at St. Bartholomew's, 1½ p.m.; St. Thomas's, 1 p.m. Westminster, 1 p.m.; King's, 2 p.m.; Charing Cross, 1 p.m.

17. *Monday.*

Operations at the Royal Free Hospital, 1 p.m.; Metropolitan Free Hospital, 2 p.m.; Orthopædic Hospital, 3 p.m.

18. *Tuesday.*

Operations at Guy's, 1 p.m.

19. *Wednesday.*

Operations at University College Hospital, 2 p.m.; St. Mary's, 1 p.m. Orthopædic Hospital, 3 p.m.

20. *Thursday.*

Operations at St. George's, 1 p.m.; Middlesex, 12½ p.m.; Central London Ophthalmic, 1 p.m.; London, 1½ p.m.

21. *Friday.*

Operations at the Moorfields Ophthalmic, 10 a.m; Westminster Ophthalmic, 1½ p.m.

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Or SACCHARATED CAPSULES, approved of by the French College of Physicians, successfully administered in the Paris and London Hospitals, and acknowledged by them to be the best remedy for the cure of certain diseases. (See the "Lancet" of 6th November, 1852; "Medical Times," 10th December, 1852; a copy of which will be forwarded on application.) Price, per 100, 4s. 6d.; 50, 2s. 9d.

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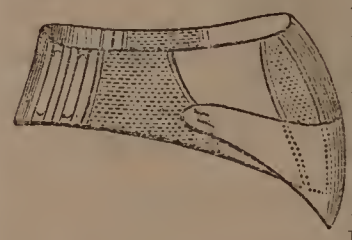

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that he cannot be answerable for the purity and strength of any Preparation sold under his name unless obtained from his sole Agent, Mr. PETER SQUIRE, her Majesty's Chemist, 277, Oxford-street, London, to whom all applications respecting it must be addressed. A Translation of his Pamphlet on Pepsine may be had of his Agent, on receipt of three Postage-stamps.

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ORIGINAL LECTURES.

A COURSE OF LECTURES ON ORTHOPÆDIC SURGERY,

DELIVERED AT THE

Grosvenor-Place School of Anatomy and Medicine.

(ADJOINING ST. GEORGE'S HOSPITAL,)

By WILLIAM ADAMS, F.R.C.S.

Assistant-Surgeon to the Royal Orthopædic Hospital; Lecturer on Surgery at the Grosvenor-Place School; late Demonstrator of Morbid Anatomy, etc., at St. Thomas's Hospital, etc.

LECTURE XI.

Concluded from page 133.

CONGENITAL TALIPES VARUS.—RELAPSED CASES.

Causes of the Tendency to Relapse.—Treatment of Relapsed Cases.—Illustration.—Concluding Remarks.

Relapsed Cases.—There can be no doubt of the fact, that in the past experience of the treatment of congenital varus, cases in which the deformity has returned, even after carefully conducted treatment by the highest Orthopædic authorities, have been by no means of uncommon occurrence, and that at the present time relapsed cases are frequently met with. So much, indeed, has this been the case, that a feeling of distrust in the complete and permanent curability of these cases still exists in the professional as well as in the public mind. I have been repeatedly asked by Surgeons of eminence whether these cases do not generally return? and in the provinces the disbelief appears to be stronger. A provincial Surgeon in large practice told me a short time since, that there were plenty of cases of club-foot in his neighbourhood, but that nothing could be done with them; sometimes they were benefitted by treatment, but they always returned. This distrust is very much strengthened in the public mind by the cases among the poor, which return to the country after having been operated upon in London, even at the Orthopædic Hospital, and in which relapse of the deformity takes places, generally in consequence of neglect of the after-treatment. It may happen that two or three such cases may occur in a populous manufacturing district, and I have known them adduced by clergymen and Medical men in argument against the vaunted curability of club-foot, and other cases thereby deterred from submitting to treatment. It becomes, then, a matter of the greatest interest to inquire—

What are the Causes of this Tendency to Relapse.—In answering this question, especially in reference to severe cases, it appears that we must either assume the existence of an inherent tendency to relapse—an opinion entertained by Dr. Little,—or believe that the tendency to relapse essentially depends upon some defect in the primary or after-treatment. I hold the latter doctrine as applicable to all the cases in which the primary treatment can be successfully adopted, *i.e.* in which the deformity can be removed; and the only exceptions, I believe, will be found in those rare cases of arrested muscular development, affecting the anterior and outer muscles of the leg, to which I have previously adverted; and even in these, although an inherent tendency to relapse undoubtedly exists, such an event, I believe, may be prevented by a continuance of mechanical means, as in paralytic cases.

The absence of any evidence of disturbed muscular action—any spasmodic affection—after the removal of the deformity is adduced by some as an argument against the dynamic origin of varus. But Dr. Little lays great stress upon the tendency to relapse depending in many cases upon a continued disposition to "tonic contraction" in the muscles which produced the deformity, and therefore regards the tendency to relapse as depending upon the continuance of this disposition, and at the same time as evidence of the spasmodic origin of the deformity. He observes, "Now it is obvious that if the dynamic property of the muscles of a joint be intact, and entire flexibility be obtained, either with or without operation, no tendency to relapse should exist; for if the muscles originally contracted be right in their functional activity, ordinary exercise would, as in the case of a sound limb, maintain the flexibility. But although volition exists in the former structurally shortened muscles of a recovered club-foot, a tendency to re-contraction—tonic contraction—does in many cases (especially those most affected,) exist." (a) In other cases in which the dynamic cause has subsided, Dr. Little observes that the deformity is little inclined to relapse.

Now, it appears to me that a sufficient explanation of the tendency to relapse, in all but the exceptionable cases previously adverted to, will be found:—1. In the induced conditions of the various tissues involved in this deformity—such as the adapted growth of the bones in the deformed position, more especially the astragalus; and also the adapted growth and relatively altered length of the ligaments; and 2. In the imperfect extent to which these induced conditions are frequently removed in consequence of the great length of time necessary for the complete restoration of these deviations, when severe, leading as it frequently does to the neglect of the after-treatment. Therefore, to me it appears quite unnecessary to suppose the existence of any inherent disposition to relapse, such as a continuing influence of the original producing cause of the deformity. Moreover, there is no evidence of the continuance of any spasmodic tendency, unless the fact that the deformity does sometimes return be so regarded, and to this conclusion I cannot assent.

The principal causes of relapse, then, which I recognise in the ordinary cases of varus, however severe, have reference to some defect either in the primary or the after treatment, when the case is submitted to treatment at a sufficiently early period; and may be arranged under the following heads:—

1. Defects in the operative treatment consisting of—(*a*) omitting to divide one or more of the contracted tendons, or more correctly speaking the tendons of contracted muscles; (*b*) incomplete division of tendons; (*c*) division of the tendons in a wrong order; (*d*) inflammatory adhesions following clumsily performed operations, or some of the accidents, such as aneurism, etc., which may occasionally occur.

2. Neglect, or discontinuance of the after-treatment, either mechanical or physiological.

Other causes of a tendency to relapse may also be mentioned, and it is certain that this may arise.

3. From the treatment not being commenced at a sufficiently early age.

4. From congenital defects of muscular development, such as absence of the anterior and outer muscles of the leg above described.

It would be tedious and unnecessary to relate the details of relapsed cases from all these various causes, I will therefore merely advert to some of the leading facts connected with them.

1. In reference to the defects in the operative treatment, I have already stated that the posterior tibial tendon was not divided subcutaneously in infants till the year 1842, previous to which it was either performed by open wound, when its division appeared to be absolutely necessary, or its division was altogether omitted. The general opinion was, that the tendo-Achillis and the anterior tibial were the principal tendons requiring division. I believe Stromeyer held this opinion, and it appears to be entertained by some Surgeons even at the present day.

The division of the posterior tibial tendon, therefore, was very frequently omitted, and as a consequence of this omission I believe the more severe cases very commonly returned I base this opinion mainly on the relapsed cases which have come under my own observation in private practice, and upon the

(a) On Deformities, page 257.

well known fact that since the subcutaneous division of this tendon has become the rule of practice in cases even of a moderated degree of severity, relapse of the deformity has been of less frequent occurrence.

With regard to the incomplete division of tendons, I have examined two cases after death (from causes not connected with the deformity) in which the posterior tibial tendon had only been cut half through in the operation performed for the cure of the deformity. In one of these cases the operation had been performed by a leading Orthopædic Surgeon, and in the other by a distinguished Hospital Surgeon of this Metropolis, and therefore this must be regarded as an accident which may occur, even in practical hands. I need hardly say that if it should occur in a severe case, the cure of the deformity must be incomplete, and relapse therefore certain.

With regard to division of the tendons in a wrong order, as a cause of relapse, I would observe that the error most frequently committed is dividing the tendo-Achillis at the beginning instead of at the end of the operative treatment. The effect of this in severe cases is, that sufficient elongation of the tendo-Achillis is not obtained, in consequence of the difficulty of accomplishing by mechanical treatment at the same time all the objects required in the restoration of the deformed foot. The tendo-Achillis, therefore, remains as a shortened, or, as it is called, a contracted tendon, at the end of the treatment, and has a strong tendency to produce relapse of the deformity. I have already insisted upon the necessity of observing a definite order in the division of tendons.

With respect to the influence of "inflammatory adhesions following clumsily performed operations, or some of the accidents, such as aneurism, etc," acting as a cause of relapse of the deformity, I would observe, that all subcutaneous operations leave behind them slight adhesions between the tendons and their sheaths; but when the operations are carefully performed, these adhesions, the inflammatory origin of which may perhaps be doubted, are very few, and extremely slender, so that they do not interfere with the free play of the tendons. The absence of inflammation is the great feature in the pathology of subcutaneous operations; but when from any cause the operations are followed by a perceptible degree of inflammation, adhesions of a stronger and more important character take place. I have told you that I have witnessed suppuration along the tendons, and in case of division of the posterior tibial tendon, suppuration extending up to the popliteal space. I have also seen aneurisms produced by wounds of arteries in these operations. Now, in all these instances, and also when the same tendon has been the subject of repeated operations, close inflammatory adhesions must take place, and by their influence in limiting the free play of the tendons, an influence which is increased by their own inherent disposition to contraction, they become important agents in inducing a reproduction of the deformity. And of this I have witnessed several examples.

2ndly. The cases of relapse arranged in the second class, viz., those arising from "neglect or discontinuance of the after-treatment, either mechanical or physiological," are of the most frequent occurrence. I have already laid great stress on the importance of careful attention to the after-treatment, and the necessity of employing such mechanical means as the case may require, as a retentive apparatus, during the time required by the bones and ligaments to adapt themselves to the normal position of the foot; and also the necessity of improving the muscular power by active and passive muscular exercise, champooing, etc. If by mechanical means, motion be allowed only in the right direction, and if by the physiological treatment, the moving agents, viz., the muscles, be proportionately improved, a sufficiently perfect state of ligamentous and osseous adaptation, and balanced muscular action, will be obtained, and all chance of relapse of the deformity prevented; but neglect of any of these means in a case even of a moderate degree of severity will most certainly lead to relapse of the deformity.

A temporary neglect or intermission of the after-treatment may sometimes be unavoidable during illness, and under these circumstances a ready excuse for the relapse is found equally by the parents and by the Surgeon; but it appears to me without sufficient reason, except when the child may have been the subject of some very protracted illness. In Hospital practice neglect of the after-treatment is a frequent cause of relapse, where poverty, ignorance and neglect are necessarily common among the class of patients we have to do with; and in private practice, the great length of time during which a continuance of the after-treatment is frequently necessary—perhaps three or four years in severe cases—renders it matter of little surprise that the parents should weary of this very tedious and troublesome treatment. Moreover, they commonly argue with apparent reason and plausibility, that as muscular weakness appears to be the most prominent condition of the limb, mechanical support must retard and interfere with the increase of muscular strength. In this they are frequently supported by their Medical attendant, who says, "The child cannot gain strength so long as it wears the steel supports." Now, this prejudiced and erroneous opinion, which is so frequently urged against the mechanical treatment of curved spine and all other deformities, ought to be at once eradicated from the professional mind. The fact is, that this is not merely a question of muscular strength, but a question of strength and position combined. An increase of muscular strength might, perhaps, be gained in some cases by discontinuing the apparatus, but if irregular muscular action be allowed to remain uncontrolled, the deformity will certainly return; and in cases of congenital varus, diminished instead of increased muscular strength will ultimately result, as a consequence of the wasting of the recontracted muscles. I have repeatedly known patients, acting under the advice of their Medical attendants, discontinue the mechanical supports, and trust to rubbing, sea-bathing, etc., instead of combining all these accessory means of treatment, and a relapse of the deformity has been the necessary and inevitable result. I have a young gentleman from Oxfordshire, eight years of age, now under my care, whose club-foot had been cured, or rather the deformity removed, three times previously at intervals of two years. The relapse appears to have been the result partly of neglect of the mechanical treatment, but principally the omission of the physiological means, which were not directed to be employed by the Surgeon under whose care he had previously been placed. After great perseverance I have succeeded in again restoring the foot, and the motion at the ankle-joint and muscular power of the limb are rapidly improving under champooing and passive exercises. I anticipate complete and permanent success.

3rdly. With regard to the treatment not being commenced at a sufficiently early age, as a cause of relapse, I would observe that the difficulty of curing the deformity—both with respect to the anatomical and physiological condition of the various tissues involved—is always proportionate to the lateness of the period at which the treatment is commenced, because during growth the bones become ossified in the deformed position of the foot, and therefore retain their imperfectly developed forms; the ligaments become adapted to the abnormal conditions of the bones and joints; and the contracted muscles remain imperfectly developed, and also become more or less degenerated from disuse. It must therefore follow that as the cure is necessarily imperfect, a proportionate tendency to relapse exists in the cases operated upon at a late period.

4thly. With regard to the last cause of relapse mentioned, viz., congenital defect of muscular development, such as absence of the anterior and outer muscles of the leg, I have dissected two cases, already described, in which this congenital defect existed, but in neither of them had any operation been performed. A tendency to relapse, however, would certainly have existed, though return of the deformity might probably have been prevented by some form of retentive apparatus which the patient would have been obliged to wear during the remainder of life, as in severe paralytic cases. Fortunately these cases are extremely rare.

The causes of relapse to which I have now directed your attention are, as regards those arranged in the first two classes, entirely within the control of the Surgeon and the parents, provided the Surgeon has the opportunity of treating the case at a sufficiently early period. And the cause arranged in the third class is also very frequently within the control of the Surgeon, because it is generally by his advice that the operation is delayed. The cause arranged in the fourth class being essentially a congenital defect of development, is of course beyond the reach of art, but its influence may be in a great measure controlled.

TREATMENT OF RELAPSED CASES.

Having described to you the various causes which produce

relapse of the deformity, I need hardly say that the treatment will necessarily vary according to the circumstances of the case. Speaking generally, the ultimate results of treatment in such cases are much less favourable than in cases in which treatment is undertaken for the first time. This depends partly upon the time lost and the structural changes thereby induced; and partly upon the effects of previous treatment, especially in reference to the adhesions of the tendons to their sheaths and neighbouring faseiæ, as above described. Sueh eases are therefore in a less favourable eondition for operative treatment, and it is advisable to persevere with mechaniеal and physiological treatment as long as any advantage ean be gained by it, before repeating the operations. In most cases, however, it will be necessary to re-divide one or more of the tendons, and the division of the tendo-Achillis alone is often sufficient. Sometimes the anterior tibial also requires division; and in the majority of cases it is also neeessary to divide the plantar fascia. Occasionally the posterior tibial tendon may require division, but much less frequently than the others. I have found this more especially necessary in the cases of relapse after the operations performed previous to the introduction of the subcutaneous division of the posterior tibial tendon in 1842, and in which this tendon had not been divided by open wound; or when the operation had been performed by Surgeons little aeeustomed to treat these cases.

When any marked degree of inversion remains, and is aecompanied with rigidity of the foot, I have adopted the plan of treating the case throughout as if nothing had been done, dividing all the tendons usually requiring division, and in the order which I have above recommended; and also dividing the treatment into two stages. I now show you the casts of one of these cases, in which, by this method, a most satisfactory result has been obtained. Sueh eases of eomplete return of the deformity are more eommonly met with in Hospital than in private practice, and depend as much or more upon defective after-treatment as upon any defect in the primary treatment. In private practice, and in cases in which the after-treatment has not been neglected, the relapsed eases generally present the characters of equino-varus with severe eontraetion of the plantar fascia and structures in the sole of the foot. The heel is raised about an inch from the ground, and the anterior part of the foot inverted, more by the contraction of the inner band of the plantar fascia than by the tibial muscles. In cases originally severe the toes are often remarkably inverted, probably from the flexor longus muscle, the tendon of which had never been divided, remaining too short. The instep is very high and irregular from contraetion of the plantar fascia, ligaments, and muscles in the sole of the foot. The foot is consequently very short and ugly. More or less inversion is apparent in walking, and the limited flexion of the ankle-joint produces lameness, and soon causes fatigue in walking exercise. As the patient walks principally upon the outer border and anterior part of the foot he is sure to suffer from troublesome eorns in these situations.

All these conditions were very well illustrated in the case from which the casts I now exhibit to you were taken. Both feet were similarly affected, and in both I sueceeded in aecomplishing an equally perfect eure. The right foot before and after treatment is represented in Fig. 55 and 56.

Fig. 55.

Relapsed ease of Varus.

Fig. 56.

Cure of same case as Fig. 55.

As this case illustrates many of the preceding remarks, the following notes may be worth recording:—

A young gentleman, Master H. A., aged 10 years, from Maidstone, was brought to me on June 28, 1852. He had been afflicted with severe congenital varus of both feet, supposed by his mother to have been caused by a strong mental impression made upon her by looking at Raphael's cartoon of the Cripple at the Gate of the Temple, when she was about three months advaneed in pregnancy. At the age of ten months this child was operated upon by one of the highest orthopædic authorities in this metropolis. Neither expense nor trouble was spared, and the mother devoted an extraordinary amount of personal trouble and attention to the after-treatment. The rubbing and exercising were also conducted by a person specially employed. The subcutaneous division of the posterior tibial tendon was attempted, but this must have been one of the earliest eases, and possibly the tendon was not divided. However, partial relapse took place twice in both feet, and some of the tendons were more than onee redivided during the first five years. At the end of this time the feet were still imperfect in form, but the parents were assured "that what remained was in the bones, and could not be removed." Passive motion was directed and unremittingly attended to, but no improvement resulted, and the boy very slowly but progressively got worse. The parents had now no hope of preventing their eldest son being a cripple, when they were induced to consult me.

In consequence of the repeated operations which had been performed in this case, and the very rigid eondition of the feet, I was not disposed to promise success, but, in the hope of improvement, further treatment was submitted to, and commeneed on the 12th of August, 1852.

In the operations in this case I re-divided the anterior and posterior tibial tendons; the tendons of the flexor longus digitorum and the extensor pollicis, the tendo-Achillis, and the plantar fascia. The mechanical treatment was conducted with the greatest care and attention, and in a few months both feet were sufficiently perfect in form to allow of the boy returning to the country. Under a combination of mechanical and physiological treatment, such as I have already deseribed to you, both feet continued to improve in form and function.

My report nearly two years and a half afterwards—January 15, 1855—says, "Both feet very perfect in form and position; also physiologically very perfect. All the muscles are strong, and pretty well developed. The calves rather high, but not very small, measuring 10½ inches in circumference. Can stand on his toes, and has a good spring from the ankle-joints. Can play at leap-frog as well as any boy in the school. Dances well; and his drill-master states "that he had examined him attentively, and could not detect the slightest defect or weakness." Does not easily tire in walking exercise.

I still see this young gentleman occasionally, and he not only remains well, but continues to improve. In form the feet are quite perfect enough; and in function they are really perfect. The cure is complete, and relapse now impossible. I could not relate to you a more successful or encouraging case.

Now, gentlemen, in thus concluding my description of the Pathology and Treatment of Congenital Varus, I would add a few words of general advice. 1st. I trust you will see the necessity of thoroughly acquainting yourselves, before undertaking the treatment of these cases, with the morbid anatomy, and all the principles and details of treatment which it has been my object to bring before you in a plain practical manner; and 2ndly. Recollect that these cases of necessity call for a long continuanee of close personal attention, and therefore a great sacrifice of time; and unless you are prepared to devote an amount of time and attention to them far beyond that required by the ordinary run of cases you will meet with in practice, I most earnestly advise you not to undertake them. If you do, the result will certainly be disappointment to your patients and their friends, and discredit to yourself. It leads to distrust in Orthopædy generally, and therefore a want of confidenee in the advantages of one of the most brilliant discoveries of modern Surgery. This remark will apply to the treatment of all deformities, but to none more than severe eongenital varus; and as this is more particularly the affection which it is our great boast to have brought within the range of Surgieal science, so eompletely and so satisfactorily that the eomplete curability of this distressing deformity is now a matter of absolute certainty, I urge these observations the more strongly upon you.

LECTURES
ON
GENERAL NATURAL HISTORY.

By THOMAS H. HUXLEY, F.R.S.

Lecturer on General Natural History at the Government School of Mines, and Fullerian Professor of Physiology, Royal Institution.

LECTURE XII.

(Continued from page 164.)

The Copepoda and Epizoa.—The common *Cyclops*, so abundant in all our fresh waters, affords an excellent illustration of the structure of the whole of this division. This minute animal is shaped something like a split pear, the larger end corresponding with the head, and the convex side with the dorsal surface. The anterior third of the body is covered by a large carapace, which at the sides extends downwards as a free fold over the bases of the appendages, but is hardly at all free posteriorly. Anteriorly in the middle line, it curves forwards and downwards, and is produced into a short rostrum, on each side of which a considerable excavation lodges the base of the long antennule (antenna of Baird), by whose vigorous oar-like strokes the animal occasionally darts through the water. At the anterior boundary of the carapace the double, black, median eye, which, unless very closely examined, appears single, shines through the carapace.

Four distinct and moveable somites succeed the carapace, and gradually diminish in diameter. The body then suddenly enlarges, and becomes divided, in the female, into four segments, the last of which gives attachment to two long setose styles, which possibly represent another somite. There is a well-developed and prominent labrum (or conjoined epistoma and labrum) in front of the mouth, and behind it is a bilobed metastoma. (a) The long and many-jointed antennules are succeeded by short and few-jointed antennæ. The mandible is strong, and has a setose palp. The second pair of gnathites are strong and incurved; the third are divided into an endopodite and an exopodite, the latter being far the larger, and so constructed, that the three distal articulations can be bent back upon the proximal ones, and opposed to the internal division, constituting a prehensile organ, the "hand" of Jurine. At some distance behind the third pair of gnathites the first pair of biramous thoracic appendages is attached to the hinder part of the cephalo-thorax. Three similar pairs are appended to the three anterior free somites, while a fifth rudimentary pair is connected with the next and smallest of these somites. The suddenly enlarged following segment of the body carries the apertures of the reproductive organs in the female, and supports the ovisacs. It is commonly regarded as the first abdominal somite; but I conceive it may consist of the united last thoracic and first abdominal somites; for, according to Dr. Claus, it is composed of two coalesced segments, which only become united after the last moult. A projection of the anterior somite, possibly a rudimentary appendage, overhangs the mouth of the vulva.

The male is much smaller than the female, and the two somites constituting the enlargement remain distinct. His antennæ are thickened, and provided with a peculiar hinge-joint, by means of which he firmly seizes the fourth pair of swimming legs of the female during copulation, and then bending up his abdomen, deposits one of the spermatophores in which his spermatozoa are inclosed (first described by Von Siebold) on the second abdominal somite of the female, close to, but not on the vulva. Dr. Claus considers that the spermatozoa enter the female organs not by the vulva, but by a special passage.

In each sex peculiar glands are contained in the two anterior abdominal somites, and in the female supply the material for the ovisacs, in the male for the spermatophores. The eggs are carried about in the ovisacs until they are hatched. The young leave them provided with three pairs of appendages, which, according to Rathke, are the rudiments of the antennules, antennæ, and third pair of gnathites, and only attain their adult form after a series of moults.

There are a few other fresh water and many marine, genera of *Copepoda*, among which *Corycæus*, with its two large more or less lateral eyes and subchelate antennæ, and the beautifully iridescent *Sapphirina* of warm latitudes, with its extremely depressed body, short filiform antennæ, two eyes, and rudimentary gnathites, are particularly worthy of notice. Dana's excellent "Crustacea" is a storehouse of information with regard to these forms.

Insensibly connected by such genera as *Ergasilus* and *Caligus* with the typical Copepods, are a great number of very singular *Crustacea*, which, from their habit of living parasitically upon aquatic animals (whence their vulgar name of "fish-lice"), have received the title of *Epizoa*. The genus *Chondracanthus*, commonly found in great abundance on the walls of the branchial chamber of the Fishing-Frog (*Lophius*), may serve very well as an illustration of the most remarkable peculiarities of this aberrant group.

Fig. 1.

Chondracanthus.—A. Female lateral view. B. Ventral view. *a.* Head. *b c.* Appendages. *d.* Median dorsal process. *e.* Median ventral processes. *f, i, h.* Lateral processes. *k.* Terminal segment. *l.* Male. *g.* Ovisacs. *m. n.* Medio-dorsal ovarian tubes. *p.* Lateral ovarian tubes. *o.* Oviduct. 2, 3, 4, 5, 6. Antennules, maxillæ.

The female is not more than half an inch long, but posteriorly two long slender cylindrical filaments, (like the rest of the animal, of a whitish or yellowish colour,) are attached to its body, which is broad and flattened, and as it were crimped at its edges, so as to present two principal transverse folds. The angles of the folds are elongated into lateral processes (*h, i, f*), and similar processes (*d, e*) proceed from the middle line of the body, which by these outgrowths and foldings become singularly distorted; and the grotesqueness of the animal's appearance is not a little enhanced by the bowing motion, accompanied by a flapping backwards and forwards of its gouty limbs, which it executes when detached from the integument of the *Lophius*.

The head is expanded into a sort of hood, whose convex

(a) Inasmuch as hardly any two writers are precisely in accordance with one another as to the homologies of the two pairs of appendages which succeed the mandibles in *Cyclops*, I have thought it advisable to apply the terms second and third gnathites, which involve no theoretical views, to them. Dr. Baird calls these appendages first and second foot-jaws, and does not mention the metastoma. Liljeborg and Claus in like manner overlook the metastoma, and, regarding the third gnathite as two pairs of appendages, speak of first, second, and third maxillæ. Dana, if I do not mistake his description, regards the metastoma as the first maxillæ; the second gnathites as maxillipedes; and the third, as first pair of feet. I imagine that it would be more just to consider the second gnathites the homologue of one of the two pairs of maxillæ of *Pontella*, etc.; the third gnathites of *Cyclopes*, being certainly homologous with the fourth in this genus. One pair of maxillæ, therefore, would be suppressed in *Cyclops*, as in *Daphnia*.

anterior margin bears the antennules and antennæ, the latter being metamorphosed into the strong curved hooks by which the *Chondracanthus* is securely anchored to the infested animal. A subquadrate labrum overhangs the mouth, but does not inclose the mandibles and form a suctorial apparatus, as in some *Epizoa*.

The mandibles and two pair of maxillæ resemble curved hooks or claws. Two pairs of feet, composed each of a basilar protopodite, terminated by an endopodite and exopodite, and exhibiting hardly any trace of articulation, are attached to the anterior part of the body behind the head.

The body ends in a rounded segment, situated in the deep notch between the last marginal processes, and bearing the two projecting vulvæ. Above each of these is a small triangular papillose lobe, probably a modified appendage, to which, as we shall see, the male attaches himself, while below them are two other rudimentary appendages. The alimentary canal is a straight tube running from the mouth to the opposite extremity of the body; but I could not satisfy myself of the existence of a distinct anus. No heart (b) could be discovered, and the nervous system and organs of sense (if any) were equally undistinguishable. The interspace between the alimentary canal and the walls of the body was almost wholly occupied by the ovarium, which consists of four tubes, situated on each side of the intestine, and giving off ramified cæca, in which the ova are developed. Anteriorly each pair of tubes open into the oviduct of its side, which passes down along the side of the body to terminate at the vulva. I found the lower part of the oviduct full of a clear gelatinous substance, and very similar in aspect to the "cement duct" of a cirripede. I imagine that this substance is secreted by the walls of the oviduct, and forms the walls of the ovigerous sac. The latter, as has been stated, has the form of a long cylindrical filament, whose upper end is, as it were, firmly held between the prominent lips of the vulva.

The male *Chondracanthus* does not attain to a twelfth the length of the female, and looks at first like a papilla upon her body near the vulva. On close examination, however, he is seen to be firmly fixed by his antennary hooks to one of the two triangular lobes described above. The hooks are doubtless at first attached to the lobe by muscular contraction; but the connexion once effected seems indissoluble—at least I found that maceration in caustic soda did not cause the male to relax his hold. I never observed more than one male attached to a female.

The body of the male is pyriform, and exhibits indications of a division into six segments beside the head. The anterior extremity presents a black eye-spot imbedded in its substance,

Fig. 2.

C. Male *Chondracanthus, in situ*, enlarged. *x*. Vulvæ of female. *w*. Triangular papillose lobes. *q*. Antennæ of male. *r*. Eye spot. *t*. Testis. *u*. Vas deferens. *v*. Genital aperture. *y*. Rudimentary appendages, female. *g*. Ovisacs.

and gives origin to a pair of rudimentary antennules, and to the strong, hooked, prehensile antennæ. Behind and below them is a large labrum and three pairs of hook-like gnathites. These are succeeded by two pairs of subcylindrical appendages, apparently representing ambulatory limbs.

The caudal extremity is terminated by two styles, and there are two prominent tubercles on the ventral surface of the penultimate somite, in which the genital apertures are seated. The alimentary canal is a delicate, irregular tube, having many brownish granules imbedded in its walls. A wide œsophagus is connected with its anterior extremity; but the other end *appeared* to be rounded, and connected with the ventral surface of the integument only by connective tissue. A complex muscular system, composed of striped fibres, is visible through the integument, and the eye-spot appeared to be connected with a subjacent ganglious mass. The body was sufficiently transparent to have allowed the pulsations of a heart to have been seen, but none could be discovered. The testis is a large oval bilobed mass (*t*), lying like a saddle upon the anterior part of the intestine. From this body a thick vas deferens runs back upon each side of the intestine, and dilates in the penultimate and antepenultimate somites into a thick walled pyriform sac—a sort of vesicula seminalis. The ova in the ovigerous sacs of the females of *Chondracanthus* which remained were not sufficiently advanced to enable me to describe the embryo. In all probability, however, it resembles that of other *Epizoa*.

There are many genera of these parasites, some of which deviate even more widely than *Chondracanthus* from the ordinary form of *Crustacea*, while others, such as *Eryasilus* and *Notodelphys*, are distinguished in no essential respect from the ordinary *Copepoda*.

In *Caligus* the labium and metastoma are elongated and united into a tube in which the sharp styliform mandibles are enclosed; and from the prevalence of this suctorial form of mouth in some of the best known species of parasitic *Copepoda*, they are frequently termed "suctorial" crustaceans. Suctorial disks for attachment are developed from the coalesced posterior pair of thoracic members in *Achtheres*, and in this genus the head, as a distinct part, becomes almost entirely obsolete.

Argulus, the parasite so common on the Stickleback, is worthy of notice as one of the most extreme modifications of the epizoic type, so much so that Zenker has even proposed to put it in a distinct order. It is extremely flattened, and is composed of an anterior cephalo-thoracic disk, succeeded by four free thoracic somites and a very short notched abdomen. A medium styliform weapon lies in a sheath in front of the mouth, and the mandibles are rudimentary. Six pairs of appendages lie behind the mouth, the anterior being metamorphosed into suckers, the next pair into strong limbs with a toothed second joint, and the four others constituting biramous swimming feet. There are two pairs of antennary organs, and two compound eyes. The males are, according to Leydig, provided with cups on their penultimate swimming feet; and during copulation these are filled with the seminal fluid, which is thus transferred to the vulva of the female, and thence to the spermatheca. The eggs are laid, and not carried about in ovisacs. The larva is provided with two pairs of swimming appendages, the future antennæ and the mandibular palps, the latter eventually entirely disappearing. They have, besides, a pair of strong legs in the place of the suckers, and behind them the rudiments of the prehensile legs and the first pair of biramous appendages, the others being rudimentary. Finally, the *Notodelphys* of Allman, which may be found very commonly in the branchial sac of *Ascidians*, closely resembles an ordinary Copepod, except that it becomes much distorted, and that it carries its ova in a chamber formed by the dorsum of the carapace. However strangely modified the adult form may be (and it must be remembered that it is always the female which undergoes the greatest amount of change), the larvæ of all these epizoic parasites resemble those of the ordinary *Copepoda* in possessing only two or three pair of appendages, and at first exhibit considerable locomotive powers. But it is curious that while two pairs of the locomotive members of the larva of *Cyclops* are the future antennæ and antennules, all the locomotive members of those epizoic Copepods whose development has been carefully traced, are rudimentary thoracic appendages, as in larval *Decapoda* and *Cirripedia*.

The two succeeding orders of the *Crustacea* present many analogies with the *Copepoda*; the *Xiphosura* perhaps offering more points of resemblance with the ordinary *Copepoda* than the *Cirripedia* do with the suctorial division. The former carry to the utmost extent that conversion of all the appendages into locomotive organs which is so obvious a tendency

(b). Rathke (Beiträge zur Fauna Norwegens) from whose account of *Chondracanthus* I have repeatedly been obliged to differ, describes a heart consisting of a fusiform tube, extending from the neck backwards in the dorsal region of the body. However, the evidence in favour of the cardiac nature of the organ which he describes is not very strong. The nervous system consists, he states, of two closely connected cords, connected with a cerebral mass, and carrying at least four pair of ganglia in the body.

in the ordinary *Copepoda*, while the latter exhibit a more extreme metamorphosis and more complete fixity in the adult state than any of the *Epizoa*.

Fig. 3.

A. *Limulus Moluccanus* (dorsal view). B. *L. rotundicada* (ventral view) —after Milne-Edwards. *a* Subfrontal area. *b*. Antennules. *c*. Antennæ. *e*. Abdomen. *f*. Operculum. *g*. Abdominal members. *h*. Caudal spine.

The *Xiphosura* are represented by the genus *Limulus*, the "King-crabs" or "Horseshoe-crabs" of America and the Moluccas,—a group of species which not merely present the many points of affinity with the Copepods which have just been hinted at, but which also offer relations of analogy (if not of affinity) with the *Phyllopoda* and the *Edriophthalmia*.

The body of *Limulus* is naturally divided into three portions—a cephalo-thorax, very similar in form to the carapace of *Apus*, but in composition more closely allied to that of *Cyclops*, an abdomen consisting of six coalesced somites, and a long, spiniform, pointed and serrated caudal appendage, or "telson." The convex dorsal surface of the carapace is divided into three longitudinal lobes, and presents anteriorly a smooth spot, on each side of which is the cornea of a simple eye; at the sides are the two large oval compound eyes. The edge of the carapace is thickened, and its sides are prolonged into points posteriorly. Anteriorly, its under surface presents a flattened, semilunar, subfrontal area, behind which it is deeply excavated (as in *Apus*), so that the cephalo-thoracic limbs and the labrum are hidden in a deep cavity formed by its shelving walls.

The edges of the abdomen are provided with great movable spines, and its under surface is excavated, as in many *Isopoda*, so as to lodge the abdominal members. On its surface it presents traces of the primitive divisions of its somites.

A movable labrum projects backwards in the middle line from the upper part of the excavated wall immediately behind the subfrontal plate, and on each side of it is a three-jointed appendage, with its second joint so prolonged as to form a pincer or chela with the third.

The attachment of this appendage is completely in front of the labrum, which separates it from the mouth, and with whose anterior edge its basal joint is articulated. The second and succeeding appendages to the sixth, are, in the general, very similar in appearance, but a close examination reveals certain important differences among them. In each the basal joint is much enlarged, but in the anterior four it is beset on its inner edge, which projects more or less into the cavity of the mouth, with very numerous moveable spines, and is altogether behind the cavity of the mouth.

Again, the second appendage differs from the third, fourth, and fifth, in that the posterior and inner articulation of its coxopodite takes place close to the front part of the labrum, and is, therefore, entirely in front of the mouth. The prolonged spinose posterior and internal angle, however, may be made to project a little into the oral cavity. The basal joints of the other three appendages have their internal articulation at the posterior edge of, or completely behind the labrum, and their inner and upper angle is provided with a moveable spinose appendage, which projects freely upwards and forwards into the oral cavity.

Each of these appendages possesses five moveable joints, besides the basal; and in the third, fourth, fifth, and sixth appendages, the antepenultimate joint exhibits a suture near its proximal end, indicative of a division of the joint into two, so that in these members the typical number of seven joints appears to be traceable. The second to the fifth members, inclusively, are in the females chelate; in the males of most species, the penultimate joint of the second, and sometimes of the third limb, developes no opposable process, and hence ends in a simple claw.

The sixth appendage, again, differs from those which precede it in other particulars besides the almost entire absence of moveable spines on the coxopodite. This joint is proportionally much larger and stronger, and is produced at its internal angle, which bears a moveable curved spatulate process, convex outwards, and directed backwards between the abdomen and the carapace. The fourth joint supports a moveable spine distally and internally. The fifth is thick and rounded, and its truncated distal end carries anteriorly four oval lamellæ, posteriorly a cylindrical joint, the continuation of the limb. With the end of this joint, two short, pointed, moveable processes, forming a rudimentary pincer, are articulated. The seventh pair of appendages consists of only a single joint, setose on its inner broad edge, and spinose below.

I have entered at some length into these seemingly unnecessarily minute structural details, because they are essential to the determination of the homologies of the parts. The six anterior pair of limbs are by most writers denominated foot-jaws, some regarding the first pair as antennæ. The last pair are considered by some to be rudimentary foot-jaws, by others to be a metastoma. The facts, however, that the two anterior pairs of appendages are inserted entirely in front of the mouth; that the next three pairs are inserted at the side of and behind the mouth; that they agree with one another in structure, and differ from those before and behind them, and are the only ones the processes of whose coxopodites lie in the mouth; finally, that the sixth and seventh pairs are entirely behind the mouth, and differ widely in structure from the others—point to the conclusion, which appears to me to be fully borne out by the muscular attachments, and nervous supply of the different appendages, that the two anterior pairs are antennules and antennæ, the next three pairs mandibles and maxillæ, while the two posterior represent anterior thoracic appendages, or some of the maxillipedes of ordinary *Crustacea*.

The appendages which follow are very similar to one another in form, and differ widely from those just described, so that it is not surprising to find them all considered of one nature, and hence denominated "abdominal" appendages. Nevertheless the first of these appendages, which acts as a sort of operculum to the rest, and carries no branchiæ, but bears the apertures of the reproductive organs upon its posterior face, has nothing to do with the abdomen, but is proved by its connexions and nervous supply to be the last thoracic appendage. (c) This operculum consists of a broad plate, composed of two lateral halves, united together in the middle line for the greater part of their extent. Each half is again subdivided by a longitudinal fissure into an internal small and an external large portion.

From the inner face of the anterior wall of the upper part of each half of the operculum a strong subcylindrical semi-cartilaginous pillar arises, and passes upwards, to be attached to an inward process of the posterior part of the cephalo-thorax, which may be called the "cephalo-thoracic tergal apophysis," (below *f*, Fig. 4), to distinguish it from similar, but smaller apophyses, which proceed from the tergal wall of the abdomen, at points corresponding with the depressions visible on the exterior. By far the greater part of the large levator muscle of the appendage is inserted into the tergum of the cephalo-thorax, and the nerve which supplies the limb is derived directly from the posterior part of the multigangliate ring,

(c) If we consider the two anterior appendages of a *Caligus* to be antennæ, and the styles to be mandibles (and that, there can be little doubt, is the correct view), and if we regard the next two pair of appendages as maxillæ, then the large opercular fin will be the third pair of thoracic appendages, and will be the homologue of that organ in *Limulus*, which it so much resembles.

which surrounds the gullet, and supplies the other thoracic appendages. (d)

The five true abdominal appendages resemble the operculum in possessing semi-cartilaginous pillars of attachment, but these are inserted into the anterior five abdominal tergal apophyses; their levator muscles are wholly attached to the abdomen, and their nerves are derived from the abdominal ganglia.

Fig. 4.

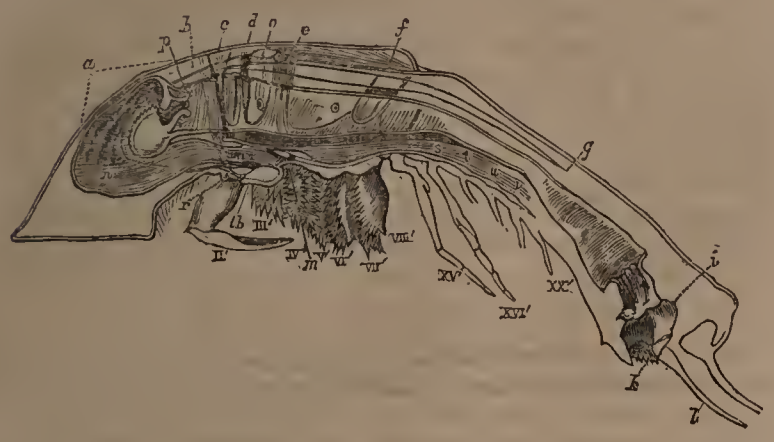


Diagram of a vertical longitudinal section of *Limulus polyphemus*. *m* Mouth. *n*. Stomach. *p*. Pylorus. *i k*. Vestibule into which the anus opens. *r*. Cerebral ganglion; the dotted line indicates the course of the ophthalmic nerve to the great compound eye, *o*; the posterior portion of the nervous ring lies above (*m*), and sends back its commissures to the abdominal ganglia *s*, *t*, *u*, *v*. *a*, *b*, *c*, *d*, *e*, origin of the muscles which proceed to the great mesophragmal aponeurosis, which lies between the alimentary canal and the nervous cord. *d*, *g*. Anterior and posterior ends of heart.

The alimentary canal of *Limulus* is very peculiarly arranged. The gullet passes directly forwards and upwards, and gradually widens into the stomach, whose walls are provided with many longitudinal folds. The pylorus forms a narrow tube projecting into the intestine. The two biliary ducts on each side are far apart, and branch out into minute tubules, which form a mass occupying the greater part of the cavity of the body. The rectum, a narrow tube with plaited walls, and very short, opens into a sort of vestibule situated between the telson and the sternal wall of the abdomen.

The heart in *Limulus Polyphemus* is an elongated muscular tube, divided into eight chambers, and having as many pairs of lateral valvular apertures. It lies in a large pericardial sinus, which presents on each side in its abdominal portion five apertures, the termination of the branchial veins. The branchiæ consist of numerous delicate semicircular lamellæ, attached transversely to the posterior face of the five abdominal appendages, and superimposed upon one another like the leaves of a book.

The nervous system appears, at first sight, to be very concentrated, its principal mass being disposed in a ring, embracing the œsophagus; but on closer inspection it is found to consist of an anterior mass, representing the principal part of the cerebral ganglia in most other *Crustacea*, and of two ganglionic cords which proceed from the outer and posterior angles of that mass, and extend as far as the interval between the last and penultimate abdominal appendages. These cords are thick, and lie on each side of the œsophagus, around which they converge, so as to come into close union and almost confluence, immediately behind it. In front of this point, however, they are connected by three or four commissural cords, which curve round the posterior wall of the œsophagus, and become gradually shorter from before backwards.

The first of these commissures unites the two cords opposite the origin of the nerves to the third pair of appendages (which I regard as the mandibles).

In front of this point the cerebral ganglion gives off anteriorly the nerves to the ocelli, eyes, and frontal region, and from their posterior and under face those to the antennules. The nerves to the antennæ arise from the cord close to the outer and posterior angles of the cerebral ganglia, and some distance in front of these to the mandibles. Close behind the latter arise the large nerves to the fifth and sixth cephalo-thoracic appendages.

The nerves to the rudimentary seventh pair of appendages are slender, and come off rather from the under part of the posterior cephalo-thoracic ganglia; those which supply the eighth pair of appendages, constituting the opercular, are also slender, and seem to come off from the longitudinal commissures, though they are, in truth, only united in one sheath with them for a short distance, and can be readily traced to the ganglia, internal to the nerves of the seventh appendages. The longitudinal commissures are very long, and are inclosed in the same sheath; they pass back into the abdomen, and then present four ganglionic enlargements, whence the nerves of the abdominal appendages proceed. The last of these ganglia is much larger than the others, and appears to consist of several confluent masses. The nerves diverge from it in such a manner as to resemble a *cauda equina*.

The reproductive organs of both sexes consist of a mass of canals, which ramify through the body amidst the hepatic tubules, and eventually open on papillæ situated on the posterior face of the operculum. The males are much smaller than the females, and present, in many species, an external sexual distinction in the peculiarity of their second and third appendages already referred to. The whole course of the development of the young has not yet been worked out; but from Milne-Edwards' observations it would appear that in the very young state the telson is undeveloped, and the appendages are fewer in number than subsequently.

To be continued.

(d) My friend, Mr. Charles Gould, formerly a distinguished student of the Government School of Mines, had the great kindness to procure, during his recent visit to America, and to bring over for me some excellent specimens of *Limulus Polyphemus*. It is on the dissection of some of them that the statements in the text are based; but I hope soon to give elsewhere a full account of my investigations.

ORIGINAL COMMUNICATIONS.

A CASE OF OPERATION FOR CLEFT AND RETRACTED EYELID,

(COLOBOMA PALPEBRÆ ET LAGOPHTHALMOS.)

By T. WHARTON JONES, F.R.S.

Professor of Ophthalmic Medicine and Surgery in University College, and Ophthalmic Surgeon to the Hospital.

Figure 1 represents the eye before the operation. The patient, a gentleman about 20 years of age, was introduced to me by my friend, Dr. Hillier, of Upper Gower-street. The distortion of the eyelids and the destruction of the eyeball were the result of injury, suffered in childhood, from the bursting of a soda-water bottle.

Fig. 1.

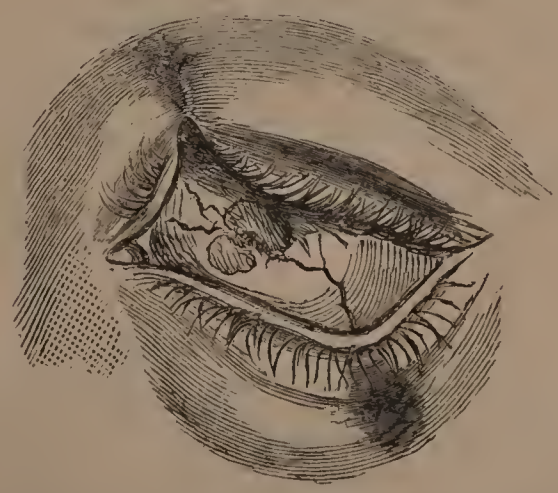


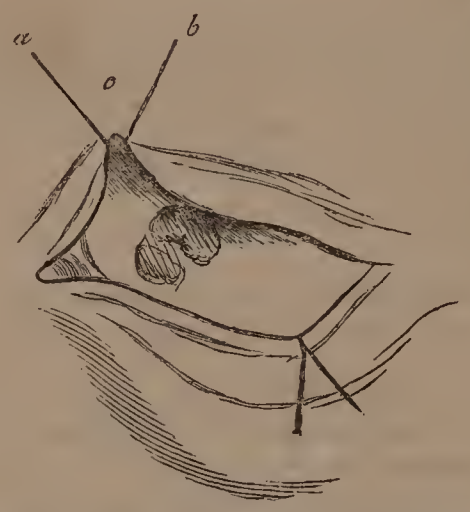
Figure 2 represents the appearance after the operation, and when an artificial eye had been fitted in.

Fig. 2.

Operation on the Upper Eyelid.

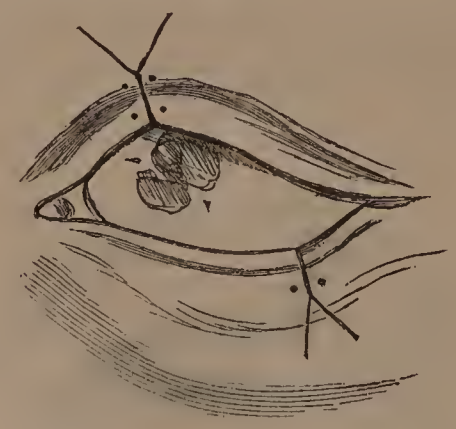
The lines *a* and *b*, in Figure 3, indicate the course of the incisions, which were made with a pair of scissors through the whole thickness of the eyelid. The angular flap *c*, marked out by these incisions, together with a frenum of conjunctiva between it and the eyeball, retracted somewhat; while the

Fig. 3.



segments of the eyelid, on either side, admitted of being brought down and united by two sutures, in the manner represented in Figure 4. Preparatory to uniting the wound, the apex of the flap *c* was pared, to make it pointed and raw.

Fig. 4.



Operation on the Lower Eyelid.

About ten days after the operation on the upper eyelid, that on the lower was performed on the same principle as indicated by the lines in Figures 3 and 4.

The operation which I have thus briefly described is, I believe, quite new in principle. No plan I am aware of, hitherto practised, could have effected the purpose so naturally, simply and completely.

ON THE MORTALITY OF THE METROPOLIS DURING THE PAST WINTER.

By J. J. FOX, Esq.

I. *Mortality from all Causes.*

The deaths registered in London during the thirteen weeks ending March 28, 1857, were 16,093. Assuming the usual hypothesis, that the increase of population since 1851 has been in the same geometrical ratio as between 1841 and 51, this number is equal to 608 out of every 100,000 inhabitants living in the middle of the quarter. But the average mortality of the previous 17 winters has been 658 per 100,000; the past winter has therefore been about 7½ per cent. *below* the average of the season. Some other winters have presented a lower mortality: thus, that of 1856 was 561; that of 1850, 568; and that of 1846, 583. The winter of 1852 corresponds almost exactly in its amount of mortality with that of 1857, being also 608 per 100,000. With these four exceptions, every winter since 1840, inclusive, has been above the present in mortality.

II. *Distribution of the mortality among various diseases.*

If the salubrity of the season equally pervaded every disease, or class of diseases, we should find each of them less than its average mortality by 7½ per cent., the same as the total mortality. The case is, however, very different. Some show a mortality very much less than the average, others slightly so; and others, again, in spite of the *general* salubrity, show a mortality even higher than usual. It is in these points that the special morbid character of a season consists; and two seasons may be the same in their total mortality, and yet, from its different distribution among the several diseases, have a morbid character entirely different. Such is the case with the winters of 1852 and the present; their total mortality is almost the same, and yet that total mortality is made up of different elements, which would require to be estimated before the two seasons could fairly be put into comparison.

If we arrange the chief diseases and classes of disease, which together make up the total mortality of this winter, according to their relation to the average mortality from the same cause or class of causes, they will appear as follows; the numbers following each representing, not the mortality, but its relation to the average mortality from the same cause in former winters.

A. Causes of death *above* the average of former winters:—

	Per cent.		Per cent.
Bronchitis	23½	Diseases of heart	6½
Teething	8	Measles	5
Hooping-cough	8	Diseases of respiratory organs	0½
Diseases of kidneys	7		

B. Causes of death *below* the average of former winters, but not so much below as the total mortality:—

	Per cent.		Per cent.
Consumption	1	Paralysis	6½
Rheumatic diseases	5	Croup	6½
Diseases of digestive organs	6	Apoplexy	7

C. Causes of death *below* the average of former winters, and differing from the average by a greater per centage than the total mortality:—

	Per cent.		Per cent.
Pneumonia	8	Diseases of nervous system	16
Premature birth and debility	10	Zymotic diseases	19
Diseases of uncertain seat	10½	Scarlatina	24
Hydrocephalus, cephalitis, and convulsions	13	Typhus	26
Erysipelas	14	Diarrhœa	33
		Small-pox	78

It appears from these numbers that the peculiar character of last winter has resided in the following points:

First.—A very low amount of mortality from the zymotic class generally: and, among them, from small-pox, diarrhœa, typhus, and scarlatina in particular (a).

(a) The mortality from small-pox has steadily diminished from the winter of 1856 to the past winter, being, in the five quarters, 18, 38, 52, 73, and 78 per cent. below the average of the corresponding seasons. Has it reached its minimum?

Secondly.—Of the zymotic class of diseases the only ones that have been prevalent are hooping-cough and measles.

Thirdly.—Bronchitis has been largely in excess of its usual prevalence; and consumption, though not more fatal than usual, at the same time not reduced in proportion to the general salubrity.

III. *Meteorology of the Season.*

To distinguish the separate action of the various elements that make up "the weather," on the morbid character of the season, is too difficult a problem to be hastily attempted. Yet the past winter, with its large amount of death from bronchitis, and its low mortality from most of the zymotic diseases, presents some features in its meteorology that may be worth noticing. To a cold November succeeded a December with great fluctuations of temperature, although averaging about the same height of thermometer as usual. The first four weeks of January were rather warmer than the average, but they were succeeded by a very cold period at the end of January and beginning of February, at the commencement of of which cold period the barometer attained a minimum, whence it rose through the whole of February to a maximum at the beginning of March. There had been rather an excess of rain in January, and the degree of humidity was above the average; but in February the amount of rain was small, almost without precedent, while the anemometer showed very much less wind than usual. March was a month corresponding in great degree with the average; its weeks were alternately warm and cold; the range of the barometer wider than usual, but there was rather less wind shown by Whewell's anemometer. It is probable that the influence of the weather in March is but slightly felt in the mortality of these three winter months, and that it is the character of December, January, and February that chiefly influence the greater or less fatality of disease during the first quarter of the year.

IV. *Comparative Mortality of the Five Divisions of the Metropolis.*

Although the total mortality of the metropolis during the winter was at the rate of 608 deaths to every 100,000, yet its rate differed considerably in the different divisions. Supposing the same law of increase of population to continue for each division that subsisted between 1841 and 1851, there are still two adjustments requisite in order to obtain the comparative mortality with some approach to correctness. The deaths occurring in the outlying workhouses must be removed from the division in which they occurred, and added to those of the division to which they rightly belonged; and secondly, the deaths in the prisons, hospitals, and asylums must be subtracted from the divisions in which they occurred, and re-distributed over the metropolis in the proportion of the remaining deaths.

Corrected by these methods, the following are the mortality of the five divisions, or groups of districts:—

Western	566
Northern	567
Southern	578
Eastern	663
Central	680

It would appear from these numbers that the west, north, and south districts were more healthy than the average of London, whilst the east and central were less so. Moreover, out of a population of 100,000 in each division, 114 more persons died in the central than died in the western division, so great seems the influence of local causes.

Stoke Newington.

ON THE HEREDITARY TRANSMISSION

OF TENDENCIES TO

CANCEROUS AND OTHER TUMOURS.

By JAMES PAGET, F.R.S.

Assistant-Surgeon and Lecturer on Physiology at St. Bartholomew's Hospital.

Among the cases which I have recorded of patients with cancerous and other tumours, I find 411 in which I have noted whether the patients or their friends did, or did not, know of tumours of any kind having occurred among their blood-relations of the same or former generations. With a view to the settlement of some questions concerning the hereditary transmission of cancerous and other diseases, I have embodied the chief results of an examination of these cases in the appended tables; and the following statements are a summary of them:

The first table shows that of the 411 patients, 254 had cancerous, *alias* malignant, tumours; 147 had non-cancerous, *alias* innocent, tumours; and 10 had non-cancerous, but recurring, tumours.

Among the 254 with cancers, 60, or 23·6 per cent. had relatives of the same or former generations with cancerous or other tumours.

Among the 147 with tumours neither cancerous nor recurring, 27, or 18·3 per cent. had such relatives with cancerous or other tumours.

Among the 10 with recurring tumours, 4, or 40 per cent. had relatives with cancers.

According to these numbers, the respective hereditary tendencies to cancerous and to non-cancerous tumours would seem not very different. But an examination of the 2nd and 3rd tables discovers a great contrast between them.

For (as Table III. shows), among the 60 cancerous patients whose relatives had tumours, not less than 57 had cancerous relatives; but (as in Table II.), among the 27 patients with tumours neither cancerous nor recurring, there were only 12 who had relatives with tumours like their own. The comparison of the respective probabilities of hereditary transmission would, therefore, be as 22·4 for the cancerous to 8·2 for the non-cancerous.

The contrast appears the stronger in sight of the fact (also shown in Table II.), that the greater part of the instances in which similar innocent tumours occurred in more than one member of the same family were limited to one kind of tumour. Of the 12 patients who had relatives with innocent tumours like their own, 7 had some form of cutaneous cyst of the scalp, leaving only 5, or 3·4 per cent. as marking the probability of hereditary transmission in all the other forms of innocent tumours reckoned together.

It is hence certain that cancerous disease, or a tendency to it, is prone to pass by inheritance from parent to offspring, and to occur (probably by inheritance of common properties) in many members of the same family and generation. It may seem unnecessary to bring evidence of a fact so generally believed; but there are some who doubt it,(a) and many who are not aware of the large proportion of cases in which cancer may be referred to an hereditary origin. Moreover, a comparison of the two Tables (II. and III.) shows, by the contrast of the two groups of cases, the cancerous and the non-cancerous, how many instances of apparently hereditary origin of disease may be referred to accidental coincidence, or to the transmission, not of a diathesis, but of some peculiarity of the structure or composition of a part. When, for example, the child of a cancerous parent has a sebaceous cyst in the scalp, we can only count it as an accidental coincidence; but, as Table II. shows, the cases of this kind are not very uncommon; and it might be right to endeavour to estimate from them a deduction to be made in the reckoning of the proportion of actually inherited cancers. For if, thus, dissimilar tumours may accidentally occur in members of the same family, so, in a certain number of cases, the occurrence of similar tumours in the same family may be referred to accident. However, as the deduction to be made on this ground can scarcely be calculated, and would certainly be less than the addition that we should have to make if we could reckon the cases of inheritance from patients with unknown internal cancers, I omit it, and thus sum up the general conclusions to be drawn from the tables.

	Per cent.
Of patients with non-cancerous tumours (Table II.) the proportion that has, or has had, relatives with tumours like their own is	8·2
Do. . . . . with tumours non-cancerous, but unlike their own	4·
Do. . . . . with cancerous tumours	6·8

(a) The general ground of the doubt is, that cancer is so common that, among any number of persons, whether cancerous or not, a large proportion would be found with cancerous relatives. The answer to this doubt may be gathered from these tables, especially from the contrast between Tables II. and III. But, it is said, people remember their relatives having diseases so serious as cancers, but forget or never heard of their having less important tumours. The answer is in the known proportion of cases of inheritance of the cutaneous cysts, a proportion considerabl larger than that of inherited cancers.

	Per cent.
Of patients with cancerous tumours (Table III.) the proportion that has, or has had, relations with cancers, is (b)	22·4
Do. with non-cancerous tumours is	1·
Of patients with recurring non-cancerous tumours (Table IV.) the proportion that has, or has had, relatives with cancers is	40·

A few words may be added concerning the last-named cases. The number of instances of these recurring tumours, which occur in the members of cancerous families, justifies an opinion which I have long entertained, but which it is very difficult to establish, namely, that such tumours often represent what may be called a gradual fading of the cancerous diathesis. The cases which I have tabulated are only those which I have seen; but I have heard and read of others like them, and believe that time will prove that, among the offspring of cancerous patients, and among the members of families in which cancer has occurred, there is a peculiar liability to the production of tumours, which will recur after repeated and complete excisions, though they are neither cancerous in structure, nor attended with similar disease in the lymphatics or other organs, nor with any cachexia but such as may be ascribed to their gradual influence on the constitution.

If this can be proved, we may justly hold that this character of recurrence indicates the existence of the cancerous diathesis, either with less abundance or with less concentration of material than is required for the production of a cancerous tumour with all the typical properties.

The imperfection of the diathesis may in some cases indicate its progressive, but as yet incomplete, development; but the probability that, in other cases, the diathesis is decreasing in hereditary transmission, is supported by facts in the history of other diseases. Thus, we know many of the liabilities of the offspring of gouty, and of phthisical, and of insane persons, and that their diseases, though they may be neither gout, nor phthisis, nor insanity, are yet of the same kinds,—essentially the same diseases, but less manifested; or of the same type, but less strongly marked; and we know that success in the management of these diseases depends, in great measure, on a due recognition of their parentage. Now, the recurring tumours, I believe, illustrate the same principle in the pathology of cancers; and if so, they deserve the closest study, as being palpable examples that, in the hereditary transmission of morbid conditions, there is a tendency towards their becoming less, a tendency towards health. (c) This may be due either to dilution, or to changes comparable with those which restore an individual from disease to health; and very probably it is an example of that general law, according to which the deviations from the true specific form and composition, which constitute varieties in species, become in successive generations gradually less, till the perfect specific characters are regained.

In practice, the recognition of recurring tumours suggests caution in speaking of what may follow the removal of any tumours from persons of cancerous family. And this caution should be the greater, the more the removed tumours deviate from the ordinary characters of innocent growths or of the fully developed natural structures. I think that the non-cancerous tumours most likely to recur are those which, at whatever date of growth, have structures similar to those of the natural parts in their very early embryonic state. Such are the recurring fibroid, composed almost wholly of elongated fibro-cells, and the recurring fibro-cellular, cartilaginous, and mammary-glandular, in all of which we find abundant soft or liquid transparent blastema, in which the proper structures, when they are to be found at all, lie loose and disorderly in their most immature forms. Indeed, whether there be any suspicion of cancerous inheritance or not, all such soft tumours with imperfect embryo structures may be regarded with fear of their recurrence after excision.

(b) This is a larger proportion than is stated in my Lectures. The difference is probably due to my having here reckoned scarcely any cases besides those of patients whom I have seen, while in the Lectures I referred to cases collected from various sources. I have, probably, inquired with more than ordinary care into the family histories of patients, but I have not questioned cancerous patients more closely or more generally upon this point than I have those with other tumours. On the other hand, I have not reckoned as patients having no relatives with tumours those in whose cases I have recorded nothing concerning their families.

(c) I think, too, that the histories of rodent ulcers, and of lupus, should be studied with a similar suspicion of their relationship to cancers.

TABLE I.

Kinds of Tumours.	Total number of cases.	Patients of whose relatives some were known to have tumours.	Patients of whose relatives none were known to have tumours.
Serous and other barren cysts	16	2	14
Glandular proliferous cysts	2	..	2
Cutaneous epidermal and sebaceous cysts	19	9	10
Fatty tumours	19	4	15
Fibro-cellular tumours and cutaneous outgrowths	5	..	5
Painful subcutaneous tumours	4	..	4
Fibrous tumours (not uterine)	17	..	17
Cartilaginous tumours	12	2	10
Cartilaginous and glandular tumours	9	1	8
Myeloid tumours	4	..	4
Osseous tumours	7	3	4
Mammary glandular tumours	23	5	18
Prostatic and other glandular tumours	4	1	3
Venous and arterial tumours (in adults)	6	..	6
	147	27	120
Recurring glandular proliferous cysts	1	..	1
Recurring fibroid and fibro-cellular tumours	7	3	4
Recurring cartilaginous tumours	1	..	1
Recurring mammary glandular tumours	1	1	..
	10	4	6
Scirrhous cancers	129	35	94
Medullary cancers	46	9	37
Epithelial cancers	65	13	52
Melanoid, osteoid, and colloid cancers	14	3	11
	254	60	194

TABLE II.—*Cases of Patients with Innocent Tumours, who had Relatives with Tumours.*

No. of case.	Patient's disease.	Relatives that had tumours.	Nature of the tumours in the relatives.
1	Cystic dilatation of mammary ducts.	Mother.	Cancer of the breast.
2	Cyst in the breast.	Mother.	Fungoid disease.
3	Sebaceous scalp-cyst.	Father; sister.	Similar cysts in same part.
4	Epidermal scalp-cyst.	Mother.	Similar cyst in same part.
5	Epidermal scalp-cyst and epidermal tumour on the sacrum.	Mother; grandmother.	Wens on the head.
6	Epidermal cyst in the neck.	Father's brother; grandmother.	Tumour in same part. Died with a tumour.
7	Cutaneous scalp-cyst.	Mother.	Similar cyst in the same part.
8	Epidermal scalp-cysts.	One or more relatives.	Similar cysts.
9	Cutaneous scalp-cysts.	Father and two of his brothers.	Cancer of the liver.
10	Cutaneous cyst and horn in the leg.	Father's brother.	Cancer.
11	Cutaneous scalp-cysts.	Mother; two sisters.	Similar cysts in same part.
12	Fatty tumour on the front of the neck.	Mother.	Similar tumour in the back of the neck.
13	Fatty tumour on the shoulder.	Aunt, and probably mother.	Cancer of the breast.
14	Fatty tumour over the clavicle.	Mother.	Cyst, probably bursal, on shoulder.
		Aunt.	Cartilaginous and glandular tumour.
15	Fatty growth on the nape.	Father.	Similar growth.
16	Cartilaginous tumour in the pelvis.	Father.	Ossified cartilaginous tumour of the radius.
17	Soft cartilaginous tumours on chest and forehead.	Mother.	Cancer of the breast.
18	Cartilaginous and glandular tumour over parotid.	Grandmother.	Cancer of the breast.
19	Numerous bony tumours on bones.	Father.	Similar tumours.
20	Bony tumour in the orbit.	Grandmother.	Wen on the neck and a soft tumour on head.
21	Bony tumour on the mastoid process.	Father.	A tumour removed from his thigh.
22	Mammary glandular tumour.	Cousin.	Nasal polypus.
23	Mammary glandular tumour.	Sister.	Probably a similar tumour.
24	Mammary glandular tumour.	Sister.	A tumour removed from the shoulder, not cancerous.
25	Mammary glandular tumours in both breasts.	Mother. Grandfather.	Cancer of the breast. Cancer of the face.
26	Mammary glandular tumour.	Aunt.	Cancer of the breast.
27	Glandular tumour over the parotid.	Father. First cousin.	Tumour in the cheek. Cancer of the breast.

TABLE III.

Cases of Patients with Cancerous Tumours, who had Relatives with Cancerous or other Tumours.

No. of case.	Patient's disease.	Relatives that had tumours.	Nature of the tumours in the relatives.
1	Scirrhous cancer of breast	Cousin.	Cancer of the breast.
2	Ditto and a mammary glandular tumour in same.	Grandmother.	Ditto.
3	Scirrhous cancer of breast.	Sister.	Ditto.
4	Ditto.	Mother.	Ditto.
5	Ditto.	Mother; sister.	Ditto.
6	Ditto.	Mother.	Ditto.
7	Ditto.	Mother; sister.	Ditto.
8	Ditto.	Mother's uncle.	Cancer of the lip.
9	Ditto.	First cousin.	Ditto of the womb.
		First cousin.	Ditto of the lip.
10	Ditto.	Mother's sister; Mother's first cousin.	Ditto of the breast.
11	Ditto. (Male.)	Mother.	Ditto.
12	Ditto.	Sister.	Ditto.
13	Ditto.	Father's mother.	
		Father's sister.	Ditto.
14	Ditto.	Father's sister;	
		Father's cousin.	Ditto.
15	Ditto.	Mother.	Ditto.
16	Ditto.	Brother.	Cancer of the eye.
17	Ditto.	Sister.	Ditto of the breast.
18	Ditto.	Sister.	Ditto.
19	Ditto.	Grandmother.	Ditto.
20	Ditto.	Mother.	Ditto.
21	Ditto.	Mother's aunt.	Ditto.
22	Cancer of axillary glands.	Sister.	Ditto.
23	Scirrhous cancer of breast.	Mother.	Internal cancer.
24	Ditto.	Sister.	Cancer of the breast.
25	Ditto.	Sister.	Ditto.
26	Ditto.	Mother.	Ditto.
27	Ditto.	Sister.	Ditto.
28	Ditto.	Grandmother.	Ditto.
29	Ditto.	First cousin.	Ditto.
30	Ditto.	Mother's sister.	Ditto.
31	Ditto.	Aunt.	Ditto.
32	Ditto.	Mother; aunt.	"Cancerous."
33	Ditto.	Great aunt.	Cancer of the breast.
34	Ditto.	Two cousins of her father and one of their daughters.	Cancers.
35	Ditto.	Mother.	Cancer.
36	Medullary cancer of great toe.	Mother's father.	Similar disease.
		Father.	Cancer of the lip.
37	Medullary cancer of one breast; scirrhous cancer of the other.	Sister.	Scirrhous cancer of the breast.
38	Medullary cancer of breast.	Mother.	Cancer of the womb.
		Uncle.	Cancer of the face.
39	Ditto of the jaw.	Mother.	Cancer of the breast.
40	Ditto of the femur.	Father.	Great cancer of the face.
41	Medullary subcutaneous cancers.	Second cousin.	Epithelial cancer of the face.
42	Medullary cancer over the parotid.	Father.	Tumour of 20 years' duration below the jaw.
		Uncle.	Epidermal cyst.
43	Ditto of cervical glands.	Father.	"Tumour in his inside. Fatal."
44	Ditto of the breast.	Mother; sister.	Cancers of the breast.
45	Epithelial cancer of the lip	Mother.	Tumour removed from or with the breast 20 years before death.
46	Ditto of the labia, etc.	Sister; father's sister; mother's brother's daughter.	Cancer of the breast.
47	Ditto of the lip.	Grandmother.	Ditto.
48	Ditto (? soot) of the larynx	Brother.	Epithelial soot-cancer of the scrotum.
49	Ditto of the cheek.	Aunt.	Cancer of the breast.
50	Ditto (? soot) of scrotum.	Half-brother.	Cancer (? soot) of the penis.
51	Ditto of the tongue.	Great aunt.	Cancer of the throat.
52	Ditto of the conjunctiva.	Sister.	Cancer of the breast.
53	Ditto of the nose and face.	Second cousin.	Medullary subcutaneous cancers.
54	Ditto of the tongue.	Father.	Cancer of the lung.
55	Ditto (? soot) of the eyelid.	Brother.	Soot cancer of scrotum.
56	Cancer (probably epithelial) of the tongue.	Sister.	Cancer of the breast.
57	Ditto (? epithelial) in the pharynx.	Mother's father, aunt, and grandmother.	Cancer.
58	Melanoid cancer of foot.	Great grandmother.	Cancer of the breast.
59	Ditto in the scalp, etc.	Mother.	Cancer at the base of the brain.
60	Ditto in the shoulder, etc.	Mother.	Cancer of the face, etc.

TABLE IV.—*Cases of Patients with Recurring Tumours, who had Relatives with Tumours.*

No. of case.	Patient's disease.	Relatives that had tumours.	Nature of the tumours in the relatives.
1	Recurring fibro-cellular tumour in the thigh.	Mother; sister.	Cancers.
2	Recurring fibroid tumour in the leg.	Brother.	Cancer of the lung.
3	Recurring fibroid tumour in the thigh.	Father.	Cancer of the tongue.
4	Recurring mammary glandular tumour.	Mother.	Cancer of the breast.
		Sister.	Fungoid disease.
		Others.	Cancers (probably).

CASE OF GRADUAL PARALYSIS,

PARTIAL RECOVERY, SUCCEEDED BY A SECOND ATTACK AFFECTING THE OPPOSITE SIDE—RECOVERY.

By HENRY COOPER ROSE, M.D.

Mrs. Catlin (a married woman, and mother of three children, youngest nine), aged thirty-six, of rather spare habit, and sallow complexion, having suffered for some weeks from severe headache, was seized, in the night of the 16th of June, 1856, with partial loss of power of the left side. She found, on endeavouring to get out of bed, that she was unable to support herself. I saw her on the following morning; she was dressed, and had, with assistance, crawled down stairs. She found, however, that she continued to lose power, and could not now stand at all. The face and mouth were drawn to the right, and her speech was very indistinct. There was no loss whatever of sensation; the tongue was slightly drawn to the right, and tremulous; the pulse was natural. Loss of power gradually increased during the day, and at night total paralysis of the left side existed. She was unable to protrude the tongue, and speech was lost. The stools and urine passed involuntarily. Both pupils were rather dilated, but equally so, and sensible to light though sluggish. Head rather hot, and pulse slow and feeble. Leeches were applied to the temples; head shaved; evaporating lotion; blister to nape of neck; calomel purge and enemata. Hydr. chlor. gr. ij. 4tis horis.

The above symptoms continued for some days; deglutition was performed with great difficulty; breathing unaffected; although when left to herself she lay in a listless state of imperfect insensibility, she was capable of being roused to a certain degree of perception, and though unable to speak she signified on inquiry that she suffered pain in the whole of the left side, more particularly under the left mamma. No auscultatory signs of disease were present.

As soon as she was thoroughly under the influence of mercury, which was not the case until June 24th, consciousness gradually returned. She still gave evidence of pain in the left side, arm, and leg, but the power of speech was absent. She could not protrude the tongue, and the fæces and urine were still discharged involuntarily. The action of mercury was kept up, and she took five grains of pot. iodid. ter die, and blister on nape of neck, dressed with ung. sabina. This treatment was persisted in with decided improvement until July 15, at which period consciousness was perfect; her speech, though with difficulty understood, was partially recovered, and she could move both arm and leg. Sensation had remained unimpaired. She had complained continually of a craving for food.

The sacrum having become sore from the urine and pressure, it was determined that she should go to the Middlesex Hospital, where she was provided with a spring mattrass, &c. She remained in the Hospital till July 29, during which time the combined influence of mercury and iodine was continued, as also the vesication. About the 25th she discovered that the right side was beginning to show symptoms of paralysis, the opposite side having improved considerably; she was also able to retain the fæces, though the urine passed involuntarily. Feeling, as she expressed herself, unwilling to die away from home, she returned thence on the 30th of July.

At this period she was able to raise the left arm and le g, to protrude her tongue in a straight line, and to make herself understood. The fæces and urine were again involuntarily discharged, and the right arm and leg were totally paralysed

on the following day. The facial paralysis of the opposite side had improved considerably, but the mouth was still drawn slightly to the right. The pupils were unaffected. She continued to take the pot. iodid. in gr. x. doses ter die. Calomel was resumed with occasional aperients, and enemata with blisters alternately ad nuchæ et vertici. No insensibility attended the second attack of paralysis.

August 15th.—She had gradually regained the use of the left hand sufficiently to grasp mine, and could raise it to her head. She could also bear some weight on the left leg. Her speech was very imperfect; the right side still continued useless; excrements retained; the pulse was natural; complained of pain in the paralyzed side, of a dull, aching character. Suffered from pain in the back of the head, and described it as a pulsating pain. This symptom had been present during the whole period of her illness.

September 16th.—She had considerably improved, having partially regained the use of the right side (the one last affected), and almost wholly that of the left. She had regained her speech sufficiently to be easily understood. Excrements were voided naturally; had not menstruated since the first attack (three months before). Was always regular before that period. She was now able to be carried down stairs during the day, and seemed cheerful. Pot. iodid. gr. iij. ter die.

October 20th. Had just menstruated. Could now stand on both legs, and use both hands. Was much depressed in spirits in consequence of the discovery that although she was able to read well prior to her attack, she was now totally incapable of spelling the most trifling word. She recollected the alphabet, and could name the letters pointed out to her, but had not the least idea of the meaning of them when combined to form a word. She made no errors in speaking. Seeing the depressing influence this fact had on her mind, I requested her not to attempt to read for some weeks, expressing a hope that she would ultimately be able to do so. The continued use of the pot. iod. having produced an irritable rash, it was ordered to be discontinued, and saline laxatives employed.

January 25th.—She had regained the use of both sides, and could walk out alone. She complained of the settled pain in the right side of the head, which was usually very slight, occasionally more troublesome, and always relieved by purgatives. The left leg was rather weak and tremulous; speech perfect. About a week ago (not having looked at a book since last report) she discovered that her recollection of words had returned, and she read with ease. She was also able to write and spell as well as usual.

N.B.—Her mother died of apoplexy in a second attack, at the age of 73.

The physiological and pathological reflections to which the symptoms of the above case give rise appear to me, however speculative, to be by no means devoid of interest. The most probable cause of the mischief I surmise to be the passive and gradual effusion of fluid either into the substance or membranes of the brain, and upon this supposition the treatment has been based. The loss, and occasional apparently sudden recovery of memory is one of those singular phenomena for which it is by no means easy to account.

Hampstead.

THE LONDON

PRACTICE OF MEDICINE AND SURGERY.

ST. BARTHOLOMEW'S HOSPITAL.

CARTILAGINOUS DISEASE AT THE LOWER END OF THE FEMUR.

(Under the care of Mr. LLOYD.)

(Reported by Mr. DANIEL, House-Surgeon.)

The following case is of much interest, as affording a good example of that very rare disease—cartilaginous tumour of bone. Mr. Lloyd remarked before the operation, that besides the extreme hardness of the growth, there was another feature in its history which led him to think that the disease was not cancer, and that was, that its growth had been comparatively painless. He believed that Mr. Paget's experience as well as his own, had been to the effect, that cancer of bone was almost always attended with much aching pain. The rapidity of the growth in this instance, considering its nature, had been unusual. The specimen was carefully examined by Mr. Paget and others, and no doubt was entertained that its structure was solely cartilaginous. The following notes are those supplied to us by Mr. Daniel:—

July 9, J. Burton Ringer, a young man, aged 24, who has followed the occupation of a bar-man, working, he says, 18 or 19 hours out of the 24, and generally standing, was admitted into the Hospital, July 9, for supposed disease of the knee-joint.

On the outer side of the joint fluctuation was distinct, and on the inner and front part was a large unyielding swelling; the popliteal artery beat more superficially than natural; the femoral and inguinal glands on the same side were enlarged; the knee was bent at an obtuse angle, and could not be straightened.

It appears that last January twelvemonths he suffered severe pain in the joint, which, however, continued but a short time, and he felt nothing more of it till the following October, when he again experienced pain, which though lasting was not sufficiently acute to prevent him from work. In March, as the pain had not left him, he thought it advisable to consult some Medical man, and then for the first time he discovered that the knee was larger than natural; he was advised to keep the limb perfectly at rest; he therefore for some time confined himself either to his bed or the sofa; he also had some leeches applied. Soon the pain ceased almost wholly, but the joint continued to increase in size till about two months ago, since which it has been stationary. Latterly he has been getting about a little by the aid of crutches, but has not been able to put the right foot to the ground.

Until the knee troubled him his health was always good, now, however, he has a cachectic appearance, and he states that for the last three or four months he has been losing flesh and strength. His appetite is bad; tongue coated; pulse 108; and although the joint is almost painless, he does not get much sleep at night.

July 9.—Ordered an aperient draught; and a dose of hyoscyamus at night. Lead and opium lotion to the knee. Milk diet, with eggs.

11th.—To-day Mr. Lloyd amputated the thigh at about the upper third; circular operation; broad strips of plaster applied to the stump, which was also gently supported by a bandage. The patient was a little sick after taking the chloroform, but towards evening he became very comfortable; not feeling inclined to sleep he took tinct. opii, ♏ xxv.

12th.—Expresses himself as feeling very easy this morning; he looks well too, and appears better in every respect; his chief complaint being thirst, he took a little soda-water from time to time.

13th.—Still doing well. Wine ʒiv daily; also beef-tea.

14th.—Bandage removed. Stump looking well.

15th.—Sutures taken out; again dressed with plaster, and a roller put on loosely.

21st.—Since the 15th he has been daily improving both as regards the stump and his general health; as for the former some union has taken place, and at other parts it is discharging healthily. This morning it looks as well as ever; but he has a pulse of 130. Very hot skin. Sickness; some tenderness in the course of the femoral vein. Ordered a little nitro-muriatic with hydrocyanic acid every four hours.

23rd.—No better; all the bad symptoms remain unabated. One of his chief complaints is excessive dryness of the mouth. The groin and upper part of the thigh to be painted with a strong solution of nitrate of silver (ʒi. ad ʒi.)

24th.—Slept three or four hours last night; now for the first time he is throwing up bile; the whole body is very yellow; the pain on pressure in the course of the femoral vein is somewhat relieved, though not wholly so; to take a pill every four hours containing hyd. c. cretâ and opium.

25th.—This morning vomiting blood; emp. cantharidis epigast. applic. Later in the day the vomiting became almost incessant, frequently throwing up a little blood, though there was not very much altogether; however, the constant effort seemed thoroughly to exhaust him. The sickness continued till about ten o'clock, and then ceased, although it left him in a very feeble state.

26th.—As low as he can well be. Through the night he has taken nourishment and stimulants tolerably well; there has been little or no sickness since about half-past ten last night.

Stump still looking as it has done throughout—healthy; the body as yellow as ever. He died a little before twelve this morning.

On examining the knee after its removal, a large quantity of fluid was evacuated from the outer side of the joint. The lower end of the femur, both within and around, was the seat of a large, somewhat vascular looking tumour, which cut at parts somewhat easily, at others very crisply. Under the microscope cartilage cells formed the chief objects in the field, and there was nothing to be seen to lead to the conclusion that the disease was at all of a malignant nature.

Post-mortem.—There was a post-mortem examination, but nothing of any great importance was made out from it. The femoral vein was in a healthy state; the liver soft, and easily broken up; the mucous membrane of the stomach in a state of congestion.

HOSPITAL NOTES.

EXCISION OF THE SHOULDER-JOINT BY THE SINGLE INCISION.

On Saturday last, in performing the excision of the head of the humerus in a case of diseased shoulder-joint, Mr. Coote adopted the single longitudinal, in preference to the V-shaped or curved incision. The case was that of a middle-aged man, in whom suppurative disorganization of the right shoulder-joint had existed for more than a year back. The swelling immediately about the joint had subsided, but there were deep sinuses above the clavicle which communicated with it, and by which very profuse discharge escaped. The shoulder was somewhat stiffened, but, on forcibly rotating the humerus, grating might easily be produced. Mr. Coote commenced his incision nearly over the most anterior part of the acromion, and carried it directly downwards for a length of about six inches. The joint having been opened, and the acromio-coracoid and the front fibres of the capsular ligament cut, the head of the bone was with much force displaced, and made to project. The soft parts being protected by copper spatulæ, the articular head was next sawn away. The cartilage was found to have been denuded in every part, but the ulceration of the bone had not proceeded deeply, and, although the section was made almost above the anatomical neck, yet its texture there appeared quite healthy. The surface of the glenoid cavity was roughened, and without cartilage; but as it did not appear to be actually carious it was not removed or gouged. After the completion of the operation the parts were closed by plaster, and the ease with which they were placed and retained in apposition was certainly much greater than after the usual operation. No vessels had required ligature.

In respect to the practice of excisions by single incisions, however tempting in its first aspect, it must be admitted that there are drawbacks as well as advantages. In cases in which the ligaments have been wholly destroyed, or so softened that they readily give way, it is, perhaps, not much more difficult than the other modes, but where the ligaments are yet strong there is certainly, as far as our experience has gone, great gain in having them fully exposed. This remark applies as well to the elbow as to the shoulder, and also to the knee and hip to a certain extent. It is impossible by ever so free an incision over any one of these articulations, if it be a merely longitudinal one, and especially if the superjacent parts be thickened by inflammatory infiltration, to so expose the ligaments as that their division is readily accomplished by the knife. Hence the necessity for the employment of much force in turning out the extremities of the affected bones. Now to all such violence there is the great objection, that although it may not, perhaps, much damage the soft parts, or risk injury to the vessels, yet it certainly does endanger the detachment of the periosteum. Upon the periosteum being well attached at the part where the bone is cut, much of the future hope of a speedy cure depends. If it have been torn away, a carious spot of bone will in all probability result, and exfoliation will necessarily ensue. In the case of the shoulder-joint also, there is the objection to the single incision, that it does not permit the Surgeon to reach the glenoid cavity easily, should it be requisite to apply the saw or pliers to that part. We do not make these remarks as at all condemning the practice adopted by Mr. Coote in this instance, but merely to show that for the employment of single long incisions in the resection of joints, it is needful to select the case. The indiscriminate adoption of the new mode would not, we fear, in the long run give such good results as the older methods have done.

We may remark, in mentioning this case, that the one in which three weeks ago Mr. Lawrence excised the head of the humerus has done remarkably well. The man is now able to walk about, and the suppuration is fast diminishing.

TREATMENT OF CHOREA.

Dr. Barlow still continues the employment of the iodide o zinc in the treatment of chorea when complicated with struma—a remedy which he introduced into use, and to which we then adverted, about two years ago. In cases in which there is no peculiarity of diathesis he employs the sulphate, but in those in which any indications of struma exist he prefers the iodide. Besides its influence over the scrofulous cachexia, it is quite possible that the iodic element may be useful against the rheumatic diathesis to which the choreic is so close a congener. Good authorities are not wanting who would account for the frequency of heart complications with chorea by supposing that the latter is a condition very closely connected with rheumatism, depending upon similar causes, and occurring more frequently in those liable to it than in others. A little girl was discharged the other day from under Dr. Barlow's care in Guy's, in whom, under a course of the iodide of zinc for chorea, a loud cardiac bruit had very much diminished in intensity.

FATAL EXCISIONS OF THE KNEE-JOINT.

The series of successful excisions of the knee-joint at King's College has been interrupted by two deaths. There had previously been four consecutive ones in which the progress had been everything that could be wished. The first of the fatal cases was an exceedingly feeble woman, on whom Mr. Fergusson performed the operation a few weeks ago, and who sank from exhaustion a few days afterwards. The second was a little girl, in a state of health in every respect favourable, who died in the night following the operation. More bleeding had occurred during the operation than usual, but not so much as to cause any anxiety. An hour or two after her removal to her bed it was found needful, in order to properly dress the wound and secure the limb, to again administer chloroform. As death was from shock and collapse a suspicion was excited as to whether this had had something to do with it. The case was one in which an excellent resul might otherwise have been anticipated.

SWING APPARATUS AFTER EXCISION OF THE HIP-JOINT.

The principle of the swing treatment for fractures, &c., certainly finds its ultra-development in its application to cases of diseased hip-joint. One case at least may, however, be seen at present in King's College Hospital in which it is so employed. Mr. Heath, the House-Surgeon, at whose suggestion, and under whose management it has been employed, informs us that very great benefit has been obtained. The mode adopted is that of Salter's swing, the apparatus being made strongly, and the entire body suspended. The wound is left uncovered, excepting by the dressings, and thus a depending escape for the discharge is secured. The great advantages are that there is no necessity to disturb the patient in order to allow of the evacuation of the bowels, and the accumulation of discharge in and about the wound is altogether prevented. But little attention is paid to the position of the thigh, provided that it be comfortable to the patient, and that it be not allowed to remain too long in the same, as the object is to secure ligamentous union and a movable limb. We are not aware that the swing has yet been employed in the case of any adult person.

Rhode Island Medical Society Prizes.—The trustees of the "Fiske Fund" have announced the following as subjects for prize dissertations in 1858. Essays are to be forwarded, post-paid, to Dr. Arnold, Sec. of Fiske Fund, Providence, Rhode Island, U. S., by May 1, 1858:—1. "The effects of alcoholic liquors on tubercular disease, or in constitutions predisposed to that disease. To be supported by facts, presented as far as possible in the statistical form." 2. "The morbid effects of the retention in the blood of the elements of the urinary secretion." The premium in each case is 100 dollars.

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Medical Times & Gazette.

SATURDAY, AUGUST 22.

SANITARY SELF-GOVERNMENT.

The House of Commons has been led to the contemplation of the subject of Local Government in sanitary questions by a circumstance of a striking, and, as it may be termed, personal character. It has been said that if reform were required in the management of railways or steam-vessels, it was only necessary that a peer or a bishop should be sacrificed by an accident, in order to awaken the slumbering energies of the Legislature, and to cause the introduction of salutary precautions in the management of locomotives. So, in order to convince honourable members of either House of Parliament that a nuisance existed in any quarter, it would be absolutely necessary that it should be perceptible to the olfactory nerves, or should be positively injurious to the health of the members, before the fact could be admitted or the remedy devised.

Now, it has happened luckily enough for the cause of Sanitary Reform, that the members of the House of Commons have themselves been made sensible of the existence of a nuisance lying literally under their very noses, and physically perceptible by those organs. A few nights since, Mr. Adderley asked the First Commissioner of Works "whether he had any plan for the prevention of the pestilential stench which came every evening into every window on the river front of the Houses of Parliament; and whether there was any power to enforce better trapping of the drains, or a removal of the deposits of bones and other refuse on the opposite bank; or whether legislation for the purpose was necessary; or, if there was no redress, whether any plan had been suggested by which the stench might be shut out of the Houses by closing up all the windows on the river side, and admitting air from another direction."

The answer by Sir Benjamin Hall to these inquiries showed that the causes of the alleged evil were manifold in their nature, being partly the breaking of the great Victoria sewer, and the consequent diversion of the sewage into a smaller sewer, the trapping of which having been "blown up," a pestilential vapour had been thereby diffused through the atmosphere. But another great source of annoyance existed in the offensive trades which were carried on upon the Lambeth bank of the river, and which, we may observe, have been pointed out again and again, as not only being productive of unpleasant emanations, but as being the fruitful sources of disease and death, which was proved during one of the visitations of cholera to this country.

It was also shown that the House of Commons possessed no power to remove any of these nuisances, but Sir Benjamin Hall had communicated the facts relating to the great and little sewers to the Metropolitan Board of Works, and he had reason to believe that they would take steps to abate the nuisance. With respect to the offensive trades carried on upon the Lambeth bank of the Thames, it would be necessary to call the attention of the local authorities to the existence of the nuisance, and to the necessity of obviating it. The Right Hon. Baronet then explained the law upon the subject of nuisances, which we shall quote *in extenso*, because it involves the exposition of a number of technicalities, and because it throws light upon the subsequent proceedings which we are about to relate in reference to the well-known Lambeth abominations. He "wished to call the attention of the House to what took place in 1855, when a Bill was introduced with the object of suppressing nuisances in large towns. Under the provisions of the Bill for the Removal of Nuisances, which was referred to a Select Committee, and which was reported to that House on the 9th of May, 1855, ample power was given to local authorities to suppress nuisances arising from trades emitting effluvia offensive or injurious to the health of the inhabitants of the neighbourhood. By section 28, local authorities might proceed against parties on complaint of any Medical officer or two legally qualified Medical practitioners; and by section 29, in case the parties proceeded against should object to the jurisdiction of justices in petty sessions, they might enter into recognisances and go to quarter sessions. There was also another clause, section 31, imposing a penalty on the local authorities if they did not proceed within fourteen days to abate the nuisance. The bone-boilers and others opposed; and in committee of the whole House the clause relating to offensive trades was altered. The clause with reference to quarter sessions was struck out, and parties were compelled to take proceedings in the superior courts; the course of proceeding was rendered much more difficult, and the clause imposing a penalty on local authorities was rejected. The consequence was that the public were now completely in the hands of the local authorities." Sir Benjamin concluded by sarcastically observing that Mr. Adderley himself, who had put the question upon the subject of the pestilential odours, had been one of the most instrumental persons in throwing the control of sanitary matters into the hands where it now rested.

The sequel of the story will be found in the columns of our parliamentary intelligence. It appears that Sir Benjamin Hall caused a letter to be addressed to the local authorities of Lambeth, pointing out the existence of the nuisances affecting the atmosphere of the Houses of Parliament, and urging the Vestry to cause steps to be taken for their abatement or removal. After a lapse of eleven days, the Vestry clerk sends a letter to the Chief Commissioner, informing him that the Vestry are not prepared to take any legal proceedings in connexion with the communication they had received; thus virtually setting the Government of the country and the two Houses of Parliament at defiance.

After expressing his regret that, in 1855, a compulsory clause was not introduced into the Act then passed, imposing penalties on local authorities for neglect of duty, Sir Benjamin Hall added that he hoped, early in the next session, that the House of Commons would pass a short bill to remedy the omission, and to compel the local boards to perform the functions devolving upon them.

We have very little doubt that the House of Commons will really legislate upon this subject now that the nuisance has been brought to their very doors; and that stringent measures, which no amount of argument, of reasoning, or of evidence would formerly have induced them to adopt, will now find favour when their own noses have been assailed in the manner described.

The little parliamentary episode to which we have thus directed the attention of our readers, naturally leads us to

make a few observations upon the very unsatisfactory condition of sanitary legislation at the present moment, and the urgent necessity which exists for its improvement. The principles of local self-government are, it is true, deeply impressed on the British mind, and within due and proper limits they afford an admirable safeguard in securing the liberties of the subject, and protecting them from monarchical or other arbitrary encroachment. But surely it is absurd to carry the system so far as to entrust the sanitary condition of the population of this country to persons who may be wholly ignorant of all sanitary science, and who, moreover, may have a personal interest in the maintenance of the very nuisances which it is their duty to remove. We are quite aware that there are many honourable and high-minded, and even highly educated and scientific gentlemen among the local boards which exercise jurisdiction over the interests of the community; but it cannot be denied that among these same local boards there exists a vast amount of ignorance and prejudice, and what is still worse, there must also, by the very constitution of human nature, be many persons whose interests are opposed to the honest execution of their duty, and who prefer the former at the expense of the latter. Now we do not argue against the delegation of power to such miscellaneous assemblies of British subjects, but we most strongly protest against giving them the *absolute* power of legislating upon matters which they either do not understand, or upon which their interests and their duty are in a state of conflict.

The conduct of the Lambeth Vestry is an instance in point; for, to deny the existence of the pestilential odours on the banks of the river, or their injurious influence upon the populace, would be an indication of the grossest ignorance or the most wilful blindness; while the probable fact that some of the Vestry are interested in the bone-boiling operations may furnish no very unintelligible reason for the unwillingness displayed to abolish the nuisance. In making these observations, we should remark that we know nothing whatever of the composition of the Lambeth Vestry, and we merely argue from the general nature of the materials of which such bodies are constituted.

It is perfectly monstrous that there should be no appeal from the decision of the local authorities, who in many similar cases neglect their duty, but whose negligence cannot be brought before the notice of the Legislature until they create or tolerate a physical stench under the windows of the House of Commons.

As we have not heard that any Honourable Member has been made seriously ill by the nuisances in Lambeth, and as we appear to have escaped, for the present summer, from the visitation of the awful diseases which occasionally, perhaps periodically, decimate our population, we rather rejoice that the Legislature has now learned from actual experience what a nuisance really is. The Parliament of Great Britain, now that their noses have sniffed the insalubrious gales produced by putrid animal and vegetable matters, may perhaps at last learn that these same exhalations are the messengers and the carriers of disease and death; and that, although the rich and the robust may ward off the pestilence by good living and change of air, yet that the poor miserable wretches whose lot places them in the midst of the noxious vapours are the sure victims marked out for destruction.

The interference of the Legislature in checking, by all known means, the spread of disease by the removal of nuisances, is most urgently demanded; and if it be argued that no steps are necessary at the present moment, because epidemic disease is not generally prevalent, we reply that a season of public health is the very best period for devising and carrying out measures of sanitary precaution. It is better to bar the door against the midnight robber than to struggle with him in mortal conflict after he has entered the house; and it is better to destroy the germs of disease, which are always too thickly sown among our crowded population, than to attack the hydra-headed monster of Cholera or Typhus when it has stalked over the length and breadth of the land, and is sweeping away many more thousands of the population than are sacrificed even in the carnage of the battle-field.

THE WEEK.

A case of some importance, as involving the question of testamentary capacity, was tried at Gloucester last week. The testatrix was a lady, of the advanced age of eighty, whose husband died on the 30th of March, 1855, and who herself died on the 13th of May following. The will was dated the 14th April, 1855, and several witnesses were called to prove its due execution. One peculiarity in the case was, that the will was made by a solicitor, to whose mother half the property was left, while the heir-at-law was entirely left out of the testamentary instructions. The other half of the property was left to a distant relative of the deceased. The questions which arose, and which required the interposition of a jury, were, whether the testatrix at her advanced age, and suffering from illness, of which she soon after died, was possessed of sufficient capacity to make a will; whether, supposing she were of sufficient capacity, the will was made according to her wishes; and whether the will produced was in fact her will at all. The evidence was by no means satisfactory as to the perfect validity of the will, although no attempt was made to prove unsoundness of mind on the part of the testatrix; and her competence was made to rest rather upon negative than positive testimony. The ordinary Medical attendant of the deceased was not brought forward at all, no doubt for good and sufficient reason on one side or the other; and the only Medical witness examined upon the trial was Dr. Evans, of Gloucester, who distinctly expressed his opinion as to her testamentary capacity, but who does not appear to have seen her more than once during the period of her last illness, when she made her will, and who was called in only as a consulting Physician for her illness, and not for the purpose of inquiring into the state of her mind. The manner in which the will was executed, although strictly legal, presented some features worthy of attention. The old lady was seriously ill from the effects of old age and bronchitis, was propped up in the bed, and signed her name to the will with very great difficulty; indeed with so much difficulty as to give rise to the suspicion in some quarters that she had not signed it at all. Under these circumstances, it cannot be a matter of astonishment that the heir-at-law disputed the validity of a document, which gave some £3000 in money, and upwards of £150 a-year, to the solicitor's mother-in-law, a lady aged sixty-six, and whom, as was alleged or insinuated by one of the counsel, the testatrix had seen only once in her life. The case presents very little difficulty in a Medico-legal point of view, and, judging by the strict rules of evidence, we apprehend that the will must have been pronounced valid; but the jury, after very much deliberation, appear to have regarded the matter in an equitable light, and decided against the validity of the will, by adjudging the moiety to the heir-at-law, thus reversing the bequest to the solicitor's mother-in-law. We do not blame the jury for coming to such a decision; and we cannot but join in the censure generally expressed at the trial against the conduct of those who make wills for old and infirm ladies in their own favour. At least, if it had been the distinct wish of the old lady to leave her money in the manner she was alleged to have left it, there should have been more evidence adduced to prove the fact, and to exonerate the solicitor from the suspicions to which he was not unreasonably exposed.

A very unseemly opposition, as it appears to us, has been raised in the House of Commons against the passing of the "Crowded Dwellings Prevention Bill," and, what is not a little extraordinary, the greatest obstacles against this very useful measure have been raised by some of the so-called Liberal members. The usual allegations of tyranny and oppression have, of course, been brought against those who are endeavouring to check the dreadful spread of vice and disease which is promoted by the over-crowding of human beings in low lodging-houses, and Lord Palmerston has been compared to Wat Tyler for his philanthropic efforts in this cause. Although an attempt was made to get rid of the Bill, on account of the advanced hour when it went into Committee, the adherents of the Government were firm, and the Bill passed through some of its stages. The reports which have been made from time to time as to the diseases engendered in overcrowded lodging-houses, besides the scenes of vice and depravity which are performed in them, call loudly for legislative interference; and we hope that before our Number has gone forth to the public the Bill to which we allude will have become the law of the land.

A correspondent in the North of England has drawn our attention to the neglect and inattention manifested towards the sick and insane poor in some of our provincial workhouses, and he hopes that the circumstances will attract the notice of the Poor-law Board. A local newspaper has been forwarded to us, containing a letter written by a nurse who was appointed to attend the poor in the Sunderland Union, but who relinquished her post after remaining a week in the establishment. The horrors revealed by this woman as existing in the Sunderland poorhouse are not surpassed even by the abominations which we sometime since noticed as pertaining to the Islington and St. Pancras workhouses. She states that sixteen children were placed in one ward, some having the itch, some the measles, and some sore heads, and that all were dried with the same towel; that the lunatics were dirty, two of them being sometimes placed in the same bed, in one room, without any ventilation, as the window would not open. She also states that the clothes given out to the paupers are swarming with vermin, and that even the dressings used for the treatment of sores are made of the coarsest cloth, rather calculated to cause ulcers than to heal them. We hope, for the sake of humanity, that this statement is untrue, or much exaggerated; but we conceive that it is incumbent on the Poor-law Board to investigate the facts, and to remedy the evils, if they are found to exist. Our correspondent, who appears to know something of the management of provincial workhouses, assures us that, in spite of the stringent laws lately passed in behalf of Lunatics, these unfortunate creatures are often detained in the workhouses instead of being sent to the asylums; and that, moreover, the insane patients are often actually chained or otherwise mechanically restrained, until they are almost moribund from maniacal exhaustion. Our correspondent has sent us his name in confidence, and we earnestly hope that the Poor-law Board and the Commissioners in Lunacy will direct their joint attention to these monstrous evils, beginning with the Sunderland Union, the internal condition of which we have alluded to upon the evidence published by one of the nurses.

It is satisfactory to learn, from the returns of the Registrar-General, that notwithstanding the very high temperature which has prevailed during the present summer, the deaths in the metropolis from diarrhœa last week were below the average, and were fewer than those which occurred in the previous weeks. In the last week in July the deaths from diarrhœa amounted to 302, but in the first week in August they declined to 258, and in the last week they decreased further to 244. Not only have the deaths from diarrhœa been comparatively few in number, but the deaths from all causes have been below the average of previous years at the same season. In the ten years from 1847 to 1856, the average number of deaths in the weeks corresponding to last week was 1255, but the deaths from all causes last week were only 1187, and these deaths, it will be observed, occurred in an increased population. But it is also observed that although the deaths from diarrhœa are this week below the average of some previous years at the same period, yet the London registers during the last twelve years exhibit a very striking increase in the prevalence of diarrhœa; for in the Augusts of the years 1840 to 1845, the number of cases of fatal diarrhœa was as low as 20 or 11, and did not exceed 70. It is a fair question whether this increase of diarrhœa is to be attributed to defective sanitary arrangements in our overcrowded city, and whether the polluted state of the Thames may not be one cause, and a very potent one, in producing the disease in question. It is most gratifying to find that the Asiatic cholera has not made its appearance among us this season.

PROGRESS OF MEDICAL SCIENCE.

Selections from Foreign Journals.

ON CEREBRAL RHEUMATISM.

By M. GUBLER.

On the strength of three cases that have occurred in his own and M. Vigla's practice, M. Gubler comes to the following conclusions:—1. Medical tradition and modern observation establish the fact of morbid determinations to the brain in the rheumatic diathesis. 2. Prior lesions of the brain or its membranes, mental over-exertion or suffering, chills, and, perhaps, over-doses of quinine, may act as occasional or adjuvatory causes. 3. On the occurrence of these cerebral complications, the articular affections sometimes abate; but for the explanation of this we need not have recourse to the doctrine of metastasis, it sufficing to admit a revulsion, or an alternation between the two great nervous systems of organic life and the life of relation. 4. At first, apparently, the membranes of the brain become inflamed, the cortical substance afterwards being involved. 5. Dependent upon the extent and intensity of this phlegmasia, the symptoms may assume the forms of a congestive rheumatic cephalalgia, of a transitory delirium leaving no anatomical traces behind, of a true meningitis or meningo-encephalitis, and, according to Stoll and others, of a rheumatic apoplexy, due to the sudden accumulation of serosity. Although analogy would lead us to admit the existence of this last form, yet the facts adduced as yet in its behalf are insufficient, inasmuch as in some of these the signs of the formation of coagula in the heart have been mistaken for symptoms of apoplexy.

Archives Générales, tome ix. p. 283.

DEATH AFTER INHALATION OF A MIXTURE OF ETHER AND CHLOROFORM.

By Dr. CROCKETT.

A sprightly boy, 5 years of age, was brought to the author to have a fatty tumour removed from the back. It was a large one, "commencing at a point at its inferior termination opposite the last rib, about two and a half inches to the right of the spinous processes, and extending obliquely upwards, crossing the spine seven inches, requiring two elliptical incisions nine inches long for its removal." The operation was commenced at 9 a.m., April 4, the anæsthetic employed being a mixture of four parts of washed ether and one of chloroform, prepared by a most respectable chemist. This was carefully mixed, and a dram poured upon a funnel-shaped sponge prepared for the purpose, and the precautions in administration recommended by Erichsen were duly observed. The operation, commenced as soon as the patient was brought under the influ-

ence, was rapidly executed, six arteries requiring ligatures. While the wound was being examined in case of other vessels bleeding, the child began to vomit, and the pulse, which until then had been good, ceased. He was placed in the prone position, as recommended by Dr. M. Hall, and a finger was passed into the mouth lest the tongue should have caused obstruction by falling back. These means were persevered in, and the extremities were rubbed with ammonia, but the patient died in three or four minutes after the commencement of the vomiting, having lost, perhaps, four ounces of blood, but certainly not six. The anæsthesia had never been carried so far as to induce the slightest stertor; and there was nothing in either the respiration or circulation calculated to cause the least alarm prior to the commencement of the vomiting. No autopsy.—*Amer. Jour. Medical Science*, July, p. 284.

EXCERPTA MINORA.

Chalk and Vinegar in Intermittent Fever.—Mr. Hodsden states that he has been eminently successful in the treatment of intermittent fever by administering chalk and vinegar. The dose is a tablespoonful of each, to be given when the effervescence has subsided, an hour before the expected time of the chill. It always acts freely on the bowels and kidneys. —*Amer. Jour. Med. Science*, July, p. 292.

Remarkable Gunshot Wound of the Heart and Stomach.—Dr. Grant relates a case in which the ball from a revolver entered a little to the right of the sternum, between the cartilages of the fifth and sixth ribs, and then entered the right ventricle about an inch from the apex. It emerged from the lower part of the same, and passing through the diaphragm and the cardiac extremity of the stomach, became lodged in the left kidney. The man remained in a state of collapse fifteen hours, and lived twenty-six days without taking nourishment. At the post-mortem the wounds in the organs were found healed, but the cicatrices were evident.—*Amer. Jour. Med. Science*, July, p. 292.

Treatment of Erysipelas by Tobacco.—Dr. Stephenson calls the attention of the Profession to the treatment of erysipelas by tobacco, and asserts that this agent is the most reliable one for subduing erysipelatous inflammation. He covers the inflamed surface with wet tobacco leaves, which are left on until much nausea is produced.—*Amer. Jour. Med. Science*, July, p. 292.

Stramonium in Puerperal Convulsions.—Dr. Salter relates some cases of puerperal convulsions as examples of the great benefit he has derived from the employment of the tinct. stramonii. It is in the epileptiform that it is most generally employed, a single half-ounce dose generally seeming to suffice. It may be combined with ergot or other remedies, according to the indications; but it is only in very few cases that Dr. Salter considers bleeding as justifiable.—*Boston Journal*, vol. lvi. p. 149.

Oil of Erigeron in Post-partum Hæmorrhage.—Dr. Livesey says that he has found this as the best of all remedies, giving five drops in a teaspoonful of alcohol. It sometimes acts almost instantaneously, so that it is rarely necessary to give a second dose, which, however, may be given in ten minutes if required.—*Boston Journal*, vol. lvi. p. 217.

Diluted Acetic Acid in Scarlatina.—Dr. Schneck reports that great success has attended his adoption of Mr. Isaac B. Brown's treatment of scarlatina. During a recent epidemic he lost 1 case in 8 or 9 out of 190 cases treated in the usual modes; while not a single case was lost of 60 treated in Mr. Brown's mode, although some of these were cases of great malignancy. —*Amer. Jour. Med. Science*, July, p. 27.

Chlorate of Potass Injections in Leucorrhœa with Ulceration of the Os Uteri.—Dr. Bedford Brown states that in cases of leucorrhœa attended with ulceration of the os uteri or cervical canal, and enlargement of the muciparous glands of the vagina, or simple ulceration without leucorrhœa, he has found injections of the chlorate (ʒi. ad ʒviii.) far more certain and efficient than the ordinary astringent injections, or the local application of caustic.—*Amer. Jour. Med. Science*, July, p. 66.

A Cock and a Bull case.—The following case is seriously given by Dr. Kerr (in *American Journal*, July,) as an example of the mental influence of the mother exerted upon the fœtus during two successive pregnancies. A woman, seven months pregnant, entered a room in great alarm, fearing one of her children was seriously burned. The burns on the face, hands and arms were, however, slight. When her infant was born at full time, great was the astonishment to find its lips, mouth, and extremities blistered, just as is observed in burns. It died on the third day. Next year she was delivered again: "and we were struck with amazement to see the child marked on the same parts, and in the same manner as the above-described one." A third delivery, mental agitation having subsided, was attended with the birth of an unburnt child. Can we laugh at old women's tales after this?

FOREIGN CORRESPONDENCE.

GERMANY.

Bonn, August 8, 1857.

A couple of hours spent in the Hospital here this morning may, perhaps, afford material for a letter not altogether unworthy of a column or two in the *Medical Times and Gazette*. Wutzer, the late Professor of Surgery here, known principally in England by the recent revival of his operation for the radical cure of reducible inguinal hernia, resigned about two years ago in consequence of declining health; but he still resides here. His chair is now filled by Professor Busch, a young surgeon from Berlin. When I was attending the Surgical Clinic in Berlin in 1853, Langenbeck the Professor had four resident assistants, Wagner, Gurlt, Busch, and Frank. Frank is well known to the readers of the *Medical Times and Gazette* by two capital papers, one on the treatment of anchylosis by forced extension, published in 1853, and one published last year, entitled "Ophthalmoscopic Sketches." As an Englishman, he went into the Army as an Assistant Surgeon at the beginning of the war, served in the East, returned to England, and is now among the Caffres at Natal. Gurlt still works on at Berlin. His books on Joint-diseases and Cysts in the Neck have been favourably reviewed in the *Medical Times and Gazette*. Wagner, whose excellent memoirs on the restoration of bones after resection, and on hare-lip, have been made known in England through the same channel, has been for the last three years chief Surgeon of the Hospital at Dantzig. The last of the four worthies, Busch, has been Professor of Clinical Surgery here since the retirement of Wutzer. He received me most cordially this morning, regretted that as it was the last day of the session he had only two operations to perform, and after signing the schedules of some twenty students, we went round the Hospital together. It has sixty beds, arranged in a number of small wards of four and six beds each, very much on the plan which our people have been so much abused for adopting at Netley; that is to say, all the wards open into corridors common to five or six wards. The situation is lofty, on a hill; the ventilation simple, by open windows; the cleansing, by dry rubbing; and the results of operations are, as may be supposed, infinitely more favourable than in the large wards, artificially ventilated, cleansed by washing, in the large Hospitals of large cities. Busch has done seventeen amputations in two years, above the wrist and ankle, and has not lost one. A man I saw with symptoms of commencing pyæmia after amputation was the first case Busch had had since his arrival.

The operating theatre is arranged on a much better plan for enabling students to see operations than even our most recent operating theatres in London. It is a lofty room, about 36 feet square. A large window occupies the greater part of the eastern side. In the centre, immediately in front of this window, is the Professor's chair, and before this the operating table. On each side of the table, extending from the window more than half-way across the room, four rows of students' benches rise one above the other. The door from the corridor is on the west side, opposite the window. In fact the plan is very nearly that of the operating room at the Ophthalmic Hospital at Moorfields on a large scale, the students being on each side of the operator, instead of behind him. A door on the south side leads to the instrument-room, and one on the north to the Museum. As soon as we were seated in the theatre Busch commenced by an account of the case of the woman upon whom he was about to operate. He showed a plaster cast of an enormous malignant tumour of the left foot and ankle, which he had removed by amputation below the knee six weeks ago. The stump was perfectly sound, having united by the first intention, but a malignant swelling had commenced over the fifth metatarsal bone of the right foot, and had

increased rapidly within the last fortnight. There was no swelling of the inguinal glands on either side, nor any sign of internal cancer. Busch then explained that he proposed to remove the metatarsal bone only, if by doing so he could entirely remove all that appeared suspicious, otherwise he should remove the toe also, and perhaps part of the foot. He did not say much about the obvious objections to any operation in such cases, merely that he thought it right to give the woman the chance of the operation. She was brought in, —a pale, oldish woman—put under chloroform, and the little toe with its metatarsal bone removed, and some surrounding tissues of unhealthy appearance. There was a good deal of bleeding, but the woman bore it all very well indeed. The prognosis, I need hardly say, was most unfavourable. The case was one in which the cancerous matter was seen on section of the bone clearly to radiate from the bone into the surrounding tissues.

The next patient was a boy, about 14 years of age, suffering from anchylosis of the right knee-joint with subluxation of the tibia backwards. The tibia was fixed nearly at a right angle with the femur, and the patella was firmly united to the external condyle of the femur. All this was the result of disease of the joint two years before, but all inflammatory action had long since ceased. The boy was brought fully under the chloroform; he was then turned over on to his belly, and Busch, fixing the thigh with one hand, and placing the other on the calf (not near the ankle, so as to get a very powerful lever and use too much force), gradually extended the leg, the giving way of the bands of union being perfectly audible, until it was brought into a line with the femur. The boy was then turned over, the leg and thigh well protected with wadding, and put up in an extending orthopædic splint, as straight as the boy could bear without pain. This splint was so contrived that by a cog-wheel at the knee the extension could be gradually increased if desired. The knee itself was left uncovered, in order that cold applications might be applied should pain come on. The Clinical Session was then ended by a few farewell remarks from the Professor. He took me round the wards afterwards, and showed me a woman upon whom he had practised this forcible extension of the knee-joint yesterday. In her case there were several cicatrices of old sinuses adhering to the bone, so that great caution was required not to tear the skin, but by extending slowly the case appeared to promise very well. The woman suffered very little pain. Busch said that in some cases at Vienna, where the popliteal vein had been injured, and phlebitis supervened, the force must have been applied too suddenly. He spoke with great interest of what we had been doing in England about excision of the knee-joint, but spoke doubtfully of the operation. He had seen several cases in Berlin, I forget the exact number, and every one proved fatal. He had been looking out for a suitable case here, but had not seen one. He thought if disease of the knee-joint could not be remedied by extension, or by the actual cautery, amputation would most likely be required. He had had sixteen cases in Bonn, and had seen many others in Berlin in which extension had proved successful. In others the actual cautery had been used with equally good results. I saw a knee in which an eschar was just healing, and a joint becoming anchylosed in a good position, though a fimbriated sensation on deep pressure showed the degeneration of the synovial membrane. In cases of chronic hydrarthrosis Busch spoke most highly of the effects of the actual cautery. A long slough is made on one or both sides of the joint, and when it separates several peas are applied to keep up discharge as long as necessary.

In the eye ward was a man upon whom Busch performed the operation of *linear* extraction of cataract yesterday. This operation has been lately much talked about in Germany. It is exclusively adapted to the *soft* cataract of persons above 12 years of age, Of twenty extractions Busch had performed in Bonn, only two had appeared suitable to him for linear extraction. Up to 12 years of age needle operations answer well, as absorption is rapid, but after this age, when the cataract is soft, linear extraction is preferable. This operation is also very useful in cases where after needle operations imbibition of the lens has been too rapid, and tumefaction has come on with its well known signs, together with inflammatory symptoms. Here linear extraction of the softened and tumefied lens, which acts as a foreign body, is the only remedy. It is a very simple and elegant operation. An incision $2\frac{1}{2}$ to 3 lines in length is made near the margin of the cornea, just as in some of the operations for artificial pupil. Then a fine hook is passed into the anterior chamber, and through the pupil, to lacerate the capsule. When this is done, if the cataract be *fluid* it at once flows away through the corneal wound. If only *soft*, it is brought away piecemeal by the ordinary scoop. The results as performed by Gräfe are most satisfactory.

The plaster of Paris bandage here, as very generally in Germany, has superseded the starch bandage. I saw a boy who had fractured the internal condyle of the humerus yesterday, whose arm was put up in this bandage almost immediately, and he was attending as an out-patient, it not being thought necessary to take him into the Hospital. Busch told me that he very often sent out fractures a day or two after they had occurred. It is applied precisely as in England, except that a coarser bandage is applied, and a greater quantity of plaster.

A woman, also attending as an out-patient to be galvanized, was a real curiosity. She was precisely in the condition of a frog whose spinal marrow has been divided, having two independent centres of motion. Many years ago she fractured her spine. Complete paralysis of the lower extremities followed, with loss of power over the bladder and rectum. This condition remained for several years. Then power gradually returned to the limbs, also to the bladder and rectum, and it appeared that galvanism had something to do with the recovery. She can now pass her water, and retain her motions, and can walk. She attends twice a week to be galvanized, and gradually walks better and better, but muscular contraction, excited by galvanism either above or below the seat of injury, never extends beyond that spot. It is clear that her spinal cord is completely severed. The electromagnetic apparatus used is a very convenient and portable one, not larger than a cold cream pot, and a small pocket-book, but of very great power. The battery is curious. A small wooden box contains a cell of zinc. This holds diluted sulphuric acid. Into this an earthen cell is placed to hold nitric acid, and a square piece of coal. The wires from the zinc and coal are carried to a coil of wire and bundle of iron wires, so arranged as to take up but a very small space. This ingenious and useful instrument is made by Fuchs of Bonn, and costs less than two pounds, with conductors complete.

There were several cases in the wards interesting to Orthopædic surgeons. The apparatus used in the different forms of club-foot is varied in a manner I have not seen before, and it appears to me to be a very great improvement. After division of tendons, and the time allowed for reunion, the general practice is to keep up permanent extension, and use passive motion occasionally. At Bonn the patient makes extension himself by pretty constant passive motion by means of a cord and pulley. The usual apparatus is used with the side-spring, but instead of bandaging the foot to the sides-pring it is left free, but with one end of a cord passed round it, and through a pulley at the end of the side-spring. There is a wooden handle at the other end of the cord which the patient holds, and which, by alternately pulling it and letting it go, keeps up an intermitting stretching process, which is both more bearable and more rapidly effectual than a fixed bandage.

There are many interesting preparations and casts in the Museum. Some of the most useful are plaster casts of recent dislocations, which Busch has had made to show the appearances to the pupils. Of course they are far more striking than any drawing could be. There are also good casts of patients before and after rhinoplastic operations, and three large fibroid tumours removed from behind the soft palate. As a curiosity I may mention casts of the arms of a woman whose hands were eaten off by a pig when she was an infant. One was bit away just above the wrist, the other near the elbow, yet the stumps had become very useful, and the woman can even thread a needle. The ends of the bones are well covered by a quantity of integument, into which the flexors and extensors are inserted, forming a sort of snout like the end of an elephant's trunk, over which the woman has complete power.

This letter is already so long that I shall only add a word or two respecting an arrangement which must some day or other be followed in England, as it is already very general on the Continent, and found to be a public convenience. There are separate bed-rooms in the Hospital for patients of the better classes, who pay a moderate sum for their board and

lodging. At Bonn they pay eighteenpence a day for the use of the room, and there is a sort of hotel-keeper attached to the establishment, whom they pay for their food. There are obvious objections to such an arrangement as this, but the principle of supporting an Hospital by those who can afford to pay a small sum, while they cannot afford the expense of treatment at home or in lodgings, is one which might be made useful in correcting the notorious abuse of public charity in England.

There will be a large meeting—*Versammlung*—of German Physicians and Surgeons at Bonn, from the 15th to the 18th of September, at which those who intend to pass their autumn holiday near the Rhine would do well to be present.

GENERAL CORRESPONDENCE.

THE USE OF THE ÉCRASEUR IN REMOVING A LARGE POLYPUS UTERI.

[To the Editor of the Medical Times and Gazette.]

Observing in your valuable paper that the écraseur is falling rapidly into disuse, I am induced to give you the result of its successful operation in a case that lately came under my observation. A poor woman, aged 53, mother of a large family, had suffered at intervals for three years from uterine hæmorrhage, which she had been led to suppose arose from prolapsus uteri; in fact had been supplied with a pessary. One evening, about two months since, I was sent for suddenly, as she had been seized with a more severe attack of hæmorrhage than on any previous occasion. On arriving, I found a large mass external to the vagina, and on manipulation discovered that it was a large polypus growing from the cervix uteri, dragging the uterus low down into the vagina; the peduncle was about an inch in length, the hæmorrhage was considerable, and came from a large ulcerated surface at the base of the polypus. I considered this a very fair case for the écraseur; and on the following day, assisted by two Medical friends, Messrs. Adamson and Davies, of Rye, the chain was passed around the centre of the peduncle; the screw was then used until the chain tightly encircled the peduncle; then the turning of the screw was suspended at short intervals, so as to avoid removing the polypus too quickly. However, in a comparatively short time it came away, and no hæmorrhage ensued. The patient stated that the pain was of a dragging character, but not more severe than she had been for a long period accustomed to from the weight of the tumour. Immediately after the operation the uterus rose into its normal position, and in a few days the poor woman was enabled to attend to her domestic duties. The polypus weighed 15¼ ounces, and was composed of dense fibrous structure. I was indebted to my friend Mr. Davies, of Rye, for the use of the écraseur. I am, etc.

Winchelsea, August 11, 1857. Robert V. Skinner.

PROFESSOR SYME'S CLAIM TO THE OPERATION OF REMOVING LOOSE CARTILAGES BY SUBCUTANEOUS INCISION.

[To the Editor of the Medical Times and Gazette.]

Sir,—In the *Medical Times and Gazette*, 1st August, 1857, Mr. Square, of Plymouth, has published an extract from a letter addressed to him by Professor Syme, of Edinburgh, in which Mr. Syme claims the originality of suggesting and performing the subcutaneous operation for the removal of loose cartilages; an operation of great practical importance, because by it a perfectly harmless procedure (when the conditions necessary to prevent inflammation in subcutaneous operations are fulfilled) is substituted for a very dangerous operation, which has been fatal in many instances. It is also an operation of scientific interest, as a most important application of the subcutaneous method.

Mr. Syme, in the letter above referred to, says, "I beg to inform you that this operation was an original idea of my own, and was communicated by me to Mr. Liston before any account of M. Goyrand's procedure had reached this country. . . . In the *Edinburgh Monthly Journal* for March, 1841, you will find an account of my first operation, which was performed in the Royal Infirmary, on February 1, 1841."

Now, Sir, in "A Sketch of Subcutaneous Surgery," which I am about publishing, I have endeavoured to trace the history of the numerous subcutaneous operations, which are undoubtedly amongst the greatest improvements of modern surgery; and I have assigned the credit of the subcutaneous operation for the removal of loose cartilages to M. Goyrand upon the following evidence.

M. Goyrand published an account of his first operation in "Les Annales de la Chirurgie Française et Etrangère," vol. i. page 63, Paris, 1841. In relating the case, M. Goyrand tells us that the patient was admitted into the Hospital of Aix on the 14th September, and that the operation was performed on the 22nd September; but, by a singular omission, he does not state the year. This omission, however, is quite covered by the advertisement on the fly-leaf page of the book, which runs as follows:—"*Conditions de l'abonnement*: Les Annales de la Chirurgie Française et Etrangère seront publiées tous les premiers du mois, à partir de Janvier, 1841."

If, therefore, this book was published on the 1st January, 1841, as the advertisement would lead us to infer, it is evident that M. Goyrand's operation was performed in September, 1840, or at least not later than that date, which would place it five months previous to that of Professor Syme.

I had given the credit to Goyrand mainly on the authority of M. Guérin, who relates Goyrand's case in a note at the end of his "Essais sur la Méthode Sous-cutanée." This book was published in the year 1841, but probably quite in the beginning of the year, as the introduction is dated "Paris, le 1er Décembre, 1840;" and M. Guérin remarks, that at the moment of completing his task he received the first number of the "Annales de la Chirurgie Française et Etrangère," previously referred to. From this evidence, I think it perfectly clear that the September in which M. Goyrand performed his first operation was in the year 1840, or not later than that year, though in his own account he has omitted the full date. I have no reason or desire to doubt the accuracy of Mr. Syme's statement, that the operation was an original idea of his own. Instances in which great discoveries in science have been almost simultaneously made by good observers in different countries are sufficiently familiar; but still I am anxious to relate in detail the proof that M. Goyrand performed the subcutaneous operation for the removal of loose cartilages, for the idea of which he states he was indebted to M. Guérin, in the month of September, 1840, five months before the operation performed by Mr. Syme; and that M. Goyrand's operation was published on the 1st January, 1841, in the first number of "Les Annales de la Chirurgie Française et Etrangère."

It was also published very early in the year 1841 by M. Guérin, probably in January, as the introduction to his *Essais* is dated December 1, 1840, so that it would seem that sufficient time had elapsed for the operation to have reached this country before its performance in Edinburgh.

I am, etc. Wm. Adams.

Henrietta-street, Cavendish-square,
8th August, 1857.

MR. ADAMS'S INSTRUMENT FOR ADULT VARUS.

[To the Editor of the Medical Times and Gazette.]

Sir,—It appears to me that Mr. Adams's reply to my letter, which you did me the favour to insert in your valuable Journal, is merely an evasive answer. I do not for a moment profess to have the profound anatomical knowledge of that gentleman, but I may be permitted to say, that I have sufficient to follow my province with success.

I respectfully submit, Sir, that the question is not as to my anatomical knowledge, but whether the instrument described by Mr. Adams is an invention of his. I maintain that it is only a modification of a former instrument. My opinion is supported by the two principal Surgeons of the Royal Orthopædic Hospital, Messrs. Tamplin and Lonsdale. Surely, Sir, the immense experience of these gentlemen fully qualifies them to be competent judges in a question of this kind.

I hope I do not go beyond the bounds of due respect when I say that Mr. Adams attaches undue importance to the application of a few endless screws, or cog-wheels as they are oftener called. By the direction of the Surgeons of the Hospital I have made apparatus with this kind of mechanism

to every joint and articulation of the human frame, beginning at the toe and ending at the neck. Motion in any direction can be made by their aid: flexion, extension, abduction, adduction, supination, pronation, inversion, eversion, rotation, lateral and posterior pressure; in fine, as I have often heard Mr. Lonsdale observe, in going round the wards, "You may do anything with them." Where then, I ask, is the invention? —where the discovery?

The alleged advantages of the modification are, that it unfolds the transverse arch of the foot simultaneously with the eversion. Now, supposing it does this, where is the ultimate gain? Can it be shown that the cure of adult club-foot is not rendered quite a certainty at the Royal Orthopædic Hospital; and that the contrivances in use there are not equal for the purpose of cure?

I beg, Sir, to repel the insinuation of Mr. Adams as to collusion. Anything I have written is my own spontaneous act. I deemed it only just to myself to write, as instrument maker to the Hospital, and having made the original instrument.

I shall not trespass further upon your time; I think I have written enough to convince your readers that the application of a few cog-wheels to orthopædic apparatus is simply a matter of detail. Mr. Adams is at present comparatively a youthful authority in these matters. I have no doubt as he gains further experience that he will not attach so much importance to the adaptation of a few cog-wheels to the convexity of an adult club-foot. I am, &c. J. Ferguson.

21, Giltspur-street, City, August 18, 1857.

[This controversy in our columns must now cease.—Ed. M. T. & G.]

PREVALENCE OF AGUE.

[To the Editor of the Medical Times and Gazette.]

Sir,—In your number dated July 18, 1857, I find among the transactions of the Royal Medical and Chirurgical Society some remarks on the frequency of ague during the last twelve months.

It may be interesting to some of your readers to mention the following fact. Ague used to be very frequent in the district in which I practise. My predecessor (Mr. Byerley), whose powers of observation no one can call in question, tells me that, during the thirty years he practised in my district, he never met with a case of ague acquired by indigenous miasma; and he further states, that in his predecessor's time ague was the besetting disease of this part of the country.

For nearly three years I never saw a case till last spring, and then seven or eight occurred in rapid succession. They were all tertian, with one exception, which was a very bad case of quotidian. These were not cases of disease taking on an aguish character, but cases in which the cold, hot, and sweating stages ran their due course, and returned with the most regular periodicity. I may here remark, that no particular variety of land seemed to be more calculated to promote these cases than another. Three of the cases occurred on light sandy soil, and in a hilly locality remarkable for its salubrity; and one occurred on stiff clay land,—soil, one would say, quite congenial to such a disease.

Drainage has been carried on to a considerable extent of late years, but still much land remains undrained. But, nevertheless, a very considerable improvement in this respect has taken place during the last five years.

To recapitulate, an intermission of nearly twenty-three years takes place, and not a case of ague takes its origin in the district; but last spring seven cases occur, all in persons who had never been out of the district. The general salubrity of the district is quite unimpaired, and is second to none in England, its mortality being 1·37 per cent. Surely some atmospheric influence must have either regenerated the miasma, or so depressed the powers of life as to render those who were affected more susceptible. It is an acknowledged fact that easterly winds will cause a recurrence of the ague fits in those suffering from the disease. Can they have been instrumental in causing the cases I have mentioned, as they prevailed to a greater extent than usual last spring?

As regards the treatment in these cases, quinine acted as a specific in all; and only in one, where convalescence was somewhat prolonged, did I use Dr. Golding Bird's treatment (potas. acet. in large doses in solution), to act as an eliminative, which seemed to act beneficially.

Upton. I am, etc. William Hewitt.

REPORTS OF SOCIETIES.

HARVEIAN SOCIETY OF LONDON.

President, A. Ure, Esq.

June 18, 1857.

Dr. Graily Hewitt read a paper,

ON A CASE OF SUDDEN DEATH FROM PLEURITIC AND PERICARDIAL DROPSICAL EFFUSION (SCARLATINAL?)—RELATION OF DROPSY TO SCARLATINA.

The case was that of a girl aged four, previously healthy, residing in rooms over a stable, who was seized, May 20th, with feverishness, heat of skin, etc. The mother administered jalap, which acted freely. In the evening, symptoms were relieved. The night of the 20th the child was feverish, and frequent micturation was noticed. There was no sore throat or difficulty of swallowing, and no rash was seen on the skin. On the morning of the second day the fever had lessened, the breathing was found to be a little quick, but the patient was well enough to go out and play, and ate her food well. Frequency of micturition continued. The night of the second day she was worse, very restless, and thirsty. Towards the morning of the third day the breathing became much oppressed. Between five and eight o'clock a.m. she was sick twice, the dyspnœa progressively increasing. At nine o'clock she was "gasping for breath," but was quite conscious; she was taken to an Hospital for relief, and expired on the road home, at half-past nine, on the third day of her illness. She was seen by Dr. Ure for the first time a few minutes after she had ceased to breathe.

Post-mortem examination.—No anasarca. Pia mater a little congested: amount of serum in lateral ventricles slight. Thymus gland larger than usual; its reservoir distended. Heart empty, pale, and flaccid. Pericardium contained half an ounce of serosity, the pleural cavities each contained about four ounces of a similar fluid. Lungs for the most part healthy: bronchial tubes congested. Liver congested. Kidneys also congested, cortical substance pale. No urine in bladder. Other organs healthy.

The author was of opinion that the cause of death was the effusion into the thoracic cavities, and that this effusion had probably been poured out only a few hours before the fatal event took place. He next proceeded to discuss the question as to the cause of the dropsy in this case: he considered this to be an example of acute consecutive dropsy following on a state of the blood induced by the reception of the poison of scarlatina, this being one of those exceptional cases in which the dropsy occurs soon after the commencement of the fever, instead of at a later period. The child had had measles, but not scarlatina; and, although it was not proved that the latter disease was present in the immediate neighbourhood, yet the neighbourhood was one frequently infested by it, and diseases of an allied character. Cases recorded by Dr. Miller, and the opinions of Drs. Copland and Willshire were cited as favouring the supposition that the dropsy of scarlet fever may be, so to speak, a part of the disease itself, a result of the action of the poison in the blood. He considered that recorded facts were only to be reconciled on this theory, although in many cases undoubtedly the dropsy did appear to depend on a state of the kidneys analogous to that which occurs in Bright's disease. The difference between a case of scarlatina with dropsy and no actual disease of the kidneys, and one of Bright's disease with dropsy, was the following:—in the one case the blood was not in a condition to allow of the necessary separation of the urea from it; in the other, that the kidneys themselves were at fault. These two conditions, doubtless, react on and increase each other in many cases. The dropsy was vicarious to a certain extent of the rash. Sudden effusion into the great thoracic cavities, and leading to a fatal result, is in children a somewhat rare occurrence; and it is still more rare that dropsy of this character sets in at so early a period

of the disease (supposing this to have been a case of scarlatina), as in the instance above recorded.

A discussion followed, in which several of the members present took part.

NORTH LONDON MEDICAL SOCIETY.

WEDNESDAY, JULY 8.

Mr. MILTON read a paper

ON THE TREATMENT OF GONORRHŒA WITHOUT SPECIFIC MEDICINES.

Having stated the necessity which existed for basing all decisions as to the value of remedies on written cases only, and for examining carefully the properties of one remedy at a time, till its true value had been ascertained, the author proceeded to give the result of his inquiries as to the action of certain curative measures in uncomplicated cases. All cases having been rejected which were not traced to their termination, it was found on careful analysis that the antiphlogistic plan of treatment did not appear to exert any material influence over the course of the disease; that waiting as many days with the same amount of rest and low diet, was equally serviceable. Local bleeding, to whatever extent it was carried, was not found to produce any real abatement of the symptoms, it only made the patient more languid and indifferent; aperients and purgatives, with zinc injections, were about equal to specifics, as were also injections of nitrate of silver used without medicines. A combination of these formed a useful but not a certain plan of treatment. The result of the inquiries was, that chloride of zinc, in whatever way used, was not superior to the nitrate of silver; that injections of either could not be relied on; but he denied that any proof of their producing stricture or orchitis, except in a very small number of cases, had been brought forward. The author then recommended the preparations of potass as the most certain remedies yet introduced. Mr. Langston Parker, Mr. Henry Thomson, and many other Surgeons had tried them with complete success.

UNIVERSITY OF LONDON.

M.B. FIRST EXAMINATION.—1857.

FIRST DIVISION.

	Medical Schools.
Adams, Samuel Hoppus	University College.
Alford, Henry James	University College.
Carter, Robert	University College.
Cayley, William	King's College.
Cooke, John	St. Thomas's Hospital.
Cousins, John Ward	St. Thomas's Hospital.
Crowfoot, William Miller	St. Bartholomew's Hospital.
Durham, Arthur Edward	Guy's Hospital.
Harley, John	King's College.
Hickman, William	University College.
Hill, Matthew Berkeley	University College.
Hind, John Marriott.	University College.
Jeffcoat, James Henry	St. Mary's Hospital.
Kempster, Felix Henry	University College.
Knaggs, Henry	Guy's Hospital.
Langdon, Thomas Charles	St. Bartholomew's Hospital.
Lloyd, Edward Harford	London Hospital.
Marriott, Charles Hayes	University College.
Moxon, Walter	Guy's Hospital.
Pemberton, Clar. Linden Hend	Queen's Coll., Birmingham.
Pile, William	University College.
Ringer, Sydney	University College.
Rivington, Walter	London Hospital.
Rix, William Howells	Middlesex Hospital.
Smith, Eustace	University College.
Thompson, Edmund Symes	King's College.

SECOND DIVISION.

Buchanan, Albert, B.A.	University College.
Copestake, Walter	St. George's Hospital.
Everet, Wilton	London Hospital.
Gasquet, Joseph Raymond	University College.
Harvey, Charles Hamilton	King's College.
Sansom, Arthur Ernest	King's College.
Shepherd, James	University College.
Squire, Alex. John Balmanno	University College.
Stokoe, Paul Henry	Guy's Hospital.

ESCAPE OF A SURGEON (MR. BATSON) FROM DELHI.

As my name has been recorded in the papers as murdered at Delhi on the 11th of May last, when the general massacre took place, I write the following, explaining the miraculous escape I have had of my life, which may be interesting to my friends and others:—On Monday, the 11th of May, the sowars came from Meerut into Delhi and wreaked their vengeance by murdering the greater portion of the Europeans. The 38th Native Infantry, 54th, and 74th were ordered out with the artillery, but being of the same mind as the sowars of the 3rd Cavalry they offered no resistance, but told their officers that they had better fly with as little delay as possible. The ladies had been collected in the tower on the hill at Delhi, and when the danger became apparent I went to Brigadier Graves, then commanding at Delhi, and volunteered to take a letter to Meerut to obtain the assistance of the European troops. Brigadier Graves gave me the letter, and after taking leave of my wife and three daughters in the tower, with the rest of the ladies, I went to my house and assumed the garb of a fuqueer, colouring my face, hands, and feet. I made for the Bridge of Boats across the Jumna, through the city; but on reaching I found the bridge broken. I returned towards the cantonment and tried to get across the river at a ferry near the powder magazine; but by this time the sowars of the 3rd Cavalry had reached the cantonment, and all the neighbouring villagers, Goojurs and Jauts, were rushing to plunder the cantonment; the houses were fired, and I despaired of being able to get to Meerut. I rushed across the parade ground, and was fired at twice by the Sepoys. I got as far as the garden near the canal, when I was seized by some villagers and deprived of every particle of clothes. I proceeded, naked as I was born, towards Kurnaul, in the hope that I might overtake the officers and ladies who had fled in that direction, but before I had proceeded a mile I saw two sowars, who had evidently failed in overtaking their officers. They rode up to me with drawn swords, and exclaimed, "Ferungee! hy! maro, maro!" I threw myself in a supplicating position, and being intimate with the Mahomedan religion, and speaking the Hindostani, I commenced uttering the most profound praises in behalf of their prophet Mahomet, and begged they would spare my life if they believed that Imam Mendhee would come to judge the world. I made every moral appeal to them (after escaping the first cut they made at my throat, which I did by falling down—they, being mounted, could not well reach me), my entreaties were listened to, and they let me go, saying, "Had you not asked for mercy in the name of the Prophet, you should have died like the rest of the Kaffirs." I was dreadfully excited, and could scarcely stand, but as I felt that I must proceed I continued my journey. About a mile further I again met a lot of Mahomedans, who rushed up to me and said, "Here is a Ferungee; kill the Kaffir." They then said to me, "You Ferungees want to make us all Christians." They then dragged me away to a village about a mile or more from the road, and tied my arms behind me, after which one of them said, "Kurreem Bux, go and fetch your sword, and we will cut off the Kaffir's head." While Kurreem Bux was gone to fetch his sword that was to launch me into eternity a cry of "Dhar, dhar," was made by the villagers, and the Mahomedans who were keeping me ran off to look after their own interests. I rushed off and ran with all my strength to the road again, and escaped from these unmerciful beings. I continued to run along the road towards Kurnaul; I was again stopped by some ironsmiths who were employed in the Delhi magazine, when one of them said, "Sahib, don't fear, come with me to my village, and I will find you food; if you go on you will surely be murdered by the Mahomedans, who have turned out from the villages to rob and kill the Ferungees." I went with the ironsmiths to their house, and was most humanely and kindly treated, one giving me a dhotee, another a cap, another some milk and native bread; I felt my life was safe; I was much excited, and could scarcely speak; they gave me a cot, on which I lay down, but could not sleep. I told these people I was a doctor, and in consequence met with much greater attention. On the following morning the Chowdrie of the village sent for me, when the whole village assembled to see the "Ferungee Doctor;" exhausted as I was, I had to answer a multitude of questions put by the people, but, finding I was per-

fectly acquainted with their religion, language, and manners, they began to take infinite interest in my life, and said they would proteet me. While I was staying at this village I heard Dr. Wood, of the 38th Native Infantry, was in a village some five or six miles off, at Summeypore; a man from this village eame to me and said, "A Dr. Wood Sahib is in my village. He requires medieines; as you know all the native medieines, pray tell me what should be given." I prescribed, but I know not whether the medieines reached him. I also heard while at this village that Colonel Ripley was lying wounded at the Ice-pits, near the Parade-ground. I persuaded the villagers that he was a very great personage, and that if they would take him food and water they would be handsomely requited by the Government for their humanity. They took him food for several days; but after I had left this village some ten days I heard that one of the Sepoys had killed him on finding him at the Ice-pits. A few days after I was in the village of Badree it was rumoured that all the Ferungees at Meerut, Umballah, and Calcutta had been murdered, and that the King of Delhi had taken the government, and that if any village concealed a Ferungee it would be death to the owners, and general ruin. The proprietors of Badree village got alarmed at this proclamation, and I was removed at night from the village to a small mango tope, where I was left night and day alone. I was visited at night by some one or other of the villagers, who brought me bread and water in a ghurrah. I am unable to describe my feelings during this trying time; I was all day in the sun, in the extreme heat, and alone at night when the jackals, etc., came prowling about and crying. It is only God and myself know what I have endured. After five days and nights in this tope of trees I was again taken back to the village and concealed in a bhoosa house; I was here shut in for twenty-four hours; the heat and suffocation I cannot find language to describe. I did not know which was the greatest misery, the tope of trees in solitude or the bhoosa kotree. A rumour now was set on foot that several sowars had been deputed to hunt for the Ferungees in the different villages, and it was considered prudent that I should quit Badree under the escort of a Fuqueer Jogee; this man came and offered to convey me anywhere that I might please, but stated that it was not safe a moment for me to remain where I was. I then started for Bursooah, where I remained the night. This Fuqueer at his friend's dyed all my clothes, and gave me necklaces of beads (oodrach), &c., to assume the garb of a Fuqueer myself. After making all preparations to pass as a Fuqueer, I commenced my pilgrimage with him. He took me to several villages and passed me off as a Cashmeere, "Dadoo Puntee, Fuqueer Jogee." In all the villages that I passed I was cross-questioned; but, understanding their "Jotish" religion and oaths, I met with every kindness, some giving me pice, others food. The Hindoos all expressed the most merciful feelings towards the Ferungees, while the Mahomedans could not disguise their murderous feelings. I was taken to a village to the house of Sewak Doss, Sunt Fuqueer Kubbeeree. Understanding his code of religion, and being able to recite several Kubbeeree Kubbits, he received me in every kindness. I told him I was a Cashmeeree; but the sage could not reconcile his mind that I was a Cashmeeree with blue eyes. He said, "Your language, gesture, clothes, etc., are all complete, but your blue eyes betray you—you are surely a Ferungee." I disclosed to him that I was. Nevertheless, as I had acquired the Kubbeeree oaths, he continued to behave the same. While I was sitting at this Fuqueer's place a Sepoy came, saying he had letters which he was taking to the Umballah force that was at Raee. He did not discover that I was a Ferungee, but I disclosed to him that I was a Doctor Sahib—would he take my letter to the officer commanding the force? I gave him a letter soliciting assistance, which he most faithfully conveyed; but, after waiting a day in hopes of getting assistance, and none coming, I thought it prudent to proceed towards Meerut. The beggar who had conducted me thus far volunteered to take me on. Several people of this village accompanied me till we got to Hurchundpore, where a Mr. Francis Cohen, a Zemindar (originally a Tussildar, in the Government employment), resides. This old gentlemen received me in all kindness, and showed me certificates under the signatures of Colonel Knyvett, Captain Salkeld, Lieutenant Holland, Mr. Marshall, merchant, of Delhi, and others, setting forth that they had received every kindness from Mr. Cohen, who had kindly sent them on to Meerut. I then made arrangements to proceed to Meerut, when a letter was brought from Kaykrah village to my address, telling me that one hundred men of the Jheend Rajah's force, commanded by Captain M'Andrews, was waiting at Kaykrah to take me on to Raee, where the head quarters were. Mr. Cohen sent me back in his cart, and I again had the gratification of seeing Captain M'Andrews and Lieutenant Mew of my own regiment. I had been twenty-five days wandering about in villages, topes, etc., and were it not that I speak the Hindostani language as fluently as I can English, I must have been murdered. I look upon my escape as the most miraculous and providential possible. I am unable to describe what I have endured. I am living, and at Delhi with the force, and am truly thankful to the Almighty for the mercy that has been shown me.

PARLIAMENTARY INTELLIGENCE.

HOUSE OF COMMONS.

THE ATMOSPHERE OF THE HOUSES OF PARLIAMENT.

Mr. Estcourt said, seeing the First Commissioner of Works in his place, he begged to ask him a question. The other day the right honourable gentleman, in answer to a question put to him by the honourable member for North Staffordshire (Mr. Adderley), stated that he had entered into communication with the local authorities of Lambeth with regard to certain noxious trades carried on in that parish, and which, as was obvious to the perception of every one who put his nose out of the library windows of that House, were, to a considerable extent, the cause of the bad vapours which entered the House from the direction of the Thames. The question he had to ask of the right honourable gentleman was, whether that communication had led to any result, and if so, whether he felt himself at liberty to state it to the House?

Sir B. Hall said, he was glad that his honourable friend had put that question to him, for the matter to which it related had become one of a very serious nature in consequence of the course which the local authorities in the parish of Lambeth had chosen to pursue on this occasion. With the permission of the House he would read a letter which he had sent to the vestry of Lambeth on the subject, and their answer:—

"Office of Works, etc., July 30.

"Sir,—By direction of the First Commissioner of Her Majesty's Works, etc., I send you herewith an extract from a report from Mr. Goldsworthy Gurney, who has the charge under this board of the warming, lighting, and ventilating of the Houses of Parliament, respecting the nuisances affecting the atmosphere of those Houses from offensive manufactories on the other side of the river. I also enclose a copy of a letter, dated the 23rd instant, from Mr. Gurney to the solicitor for this department, specifying some of the manufactories referred to by him; and I am to request that you will submit these papers to the vestry of the parish of Lambeth, and move them to cause steps to be taken for the suppression or abatement of the nuisances in question.

"I am, "Alfred Austin, Secretary.

"Thomas Roffey, Esq."

That letter was sent on the 30th of July, and in reply to it he received on Tuesday last the following communication from the vestry clerk:—

"The Vestry of the Parish of St. Mary, Lambeth,
"Vestry-hall, Kennington-green, Aug. 10.

"Sir,—I beg to inform you that your communication of the 30th ult. respecting the nuisances affecting the atmosphere of the Houses of Parliament from offensive manufactories on this side of the river, was submitted to a vestry meeting on the 6th inst., and, in reply thereto, it was resolved that Mr. Austin be informed that this vestry has had the matter referred to in his letter under their consideration, and are not prepared to take any legal proceedings in connexion therewith.

"I am, &c. "Thomas Roffey, Clerk of the Vestry.

"Alfred Austin, Esq."

The House would therefore see how important it was that the Act of 1855 should have contained the clause inserted on the recommendation of the Select Committee, imposing penalties on the local authorities for the neglect of duty on their part,

and how much it was to be regretted that that clause should have afterwards been expunged. (Hear, hear.) He would only add that he hoped early in next session the House would pass a short Bill to remedy the omission, and to compel the local authorities, on requisition being made to them, to act in the discharge of their duty. (Hear, hear.)

CLOTHING OF TROOPS FOR INDIA.

Mr. STAFFORD begged to ask the Under Secretary for War a question as to two branches of the arrangements with respect to troops going to India, both of which had created considerable anxiety in the public mind. The hon. gentleman was supposed to have stated, in answer to a previous question, that the troops had taken a supply of suitable clothing with them, but he subsequently modified the statement by saying the cool clothing would meet them on their arrival at Calcutta. It was rumoured that the troops were separated from the Medical comforts and drugs which ought to attend them on the voyage. He wished to ask whether the War-office had made arrangement for a supply of cool clothing during the voyage, and whether there was any truth in the report that the Medical comforts and drugs were to be sent by ships not sailing at the same time, nor going in company with the ships conveying the troops to Calcutta.

Sir J. RAMSDEN was very sorry to find that the answer which he gave to a question on a former occasion was not quite clear. He understood that question to be, what provision was made of cool clothing for the troops in India, and therefore in his answer he did not intend to touch upon the question whether the clothes would go out with the troops or be found on their arrival there. He did not think the question put to him embraced that point, and thus his reply gave rise to a misunderstanding which he regretted. (Hear.) With regard to clothing for the voyage, by a regulation at present in force soldiers ordered to a foreign station received an advance of three months' pay. Out of that advance certain articles called "sea necessaries" were provided by the commanding officers, the total cost of which amounted to rather more than £2, and the balance of the pay was handed over to the commanding officer, to be expended in any articles which might conduce to the soldier's comfort on the voyage. He might also add, that from inquiries which he had made at the India Board, he was able to state that whenever a transport was taken up by the East India Company, the owner of the transport entered into a contract to provide sufficient awnings to spread over the deck of the vessel, so as to protect the troops from the heat of the sun. With regard to the report that the Medical comforts were separated from the soldiers on the voyage, he had the authority of the Director-General of the Army Medical Department for saying that in every case the Medical comforts and medicines went in the same ship as the troops. (Hear.)

MEDICAL NEWS.

DEATHS.

DODS.—On the 16th instant, George Douglas Dods, Staff-Surgeon in Her Majesty's Forces, aged 40.

HAYDEN.—July 29th, in Dublin, G. T. Hayden, M.D., aged 82.

MALDEN.—On the 13th instant, at Worcester, F. C. F. Malden, M.R.C.S. Eng. 1848; aged 32.

PAULSON.—On the 13th inst. at Mansfield, Notts., W. H. Paulson, M.R.C.S. Eng., 1828; L.S.A., 1826, aged 52.

WHITING.—On Tuesday last at King's Lynn, in his 56th year, Joseph B. Whiting, M.R.C.S. Eng., and L.S.A. 1823. In the year 1847 Mr. Whiting was appointed, with two or three others, a magistrate for the borough; and the office affording scope for his active mind, he became an efficient member of the Bench. He was, in 1852, elected, after one of the most severe struggles connected with Municipal matters, a member of the Council for the Middle Ward; but attention to his public duties being found to be incompatible with his professional engagements, he at the close of the three years relinquished his seat, and at the some time refrained, for the same reason, from continuing his attention to the Bench. At the institution of the Hospital, Mr. Whiting became a member of the staff, and continued so for many years, during which he contributed, by his professional exertions, materially to the success of this valuable institution. He was always, as far as his time would permit, a foremost supporter of the Museum, and other institutions which had for their object the welfare of his fellow-townsmen. As a zealous promoter of the Athenæum, he was spared long enough to aid in establishing it, and to witness its success. The immediate cause of death was a rupture of a vessel, which induced almost instant decease.

WILSON.—On the 4th instant, at Norton-hill, William Wilson, M.D., aged 69.

APPOINTMENT.

MR. FRANCIS BOND has been unanimously elected, out of eight condidates on the ground of merit, Resident Medical Tutor at Queen's College, Birmingham.—In the year 1851, Mr. Bond obtained the first place in Zoology, and the second place in Chemistry, at the matriculation examination for honours at the University of London. In the year 1853, at the B.A. examination of the same University, he obtained the first place in Chemistry, with the University prize, second place in Botany, and fourth in Physiology.

ROYAL BOTANIC SOCIETY OF LONDON.—The eighteenth anniversary meeting of the above Society was held yesterday at the Gardens, Regent's-park, W. S. Jones, Esq. in the chair. The reports from the council and auditors, read at the meeting, showed the affairs of the Society to be in a very satisfactory and flourishing condition. The total receipts of the season had reached £11,860 12s. 2d. and the payments amounted to £9585 4s. 10d.; and the liabilities were £997 16s. 5d. less this year than at the end of 1856. The number of Fellows now on the books is 2175, of whom 145 have been elected since the last meeting. Reports were also read from the secretary and curator, with a long list of donations received for the gardens and museum, and also an account of the specimens of plants presented by the Society to various professors, for the purpose of illustrating their lectures; the number of these specimens was 9872. The attendance of the students at the lectures had been more numerous than usual, and the visits to the gardens during the year had been 133,997. The thanks of the Society were voted to His Royal Highness the Prince Consort, the vice-presidents, treasurer, and council, and executive officers of the Society.

MEDICAL RETURNS FROM THE BALTIC AND BLACK SEA FLEETS.—Yesterday appeared a Parliamentary paper containing some interesting details relative to the mortality in the Baltic and Black Sea fleets in the years 1854 and 1855. It is shown that the total mortality from all causes, in both fleets, and in both years, amounted to 2,029 deaths, of which, 1,574 were caused by disease, 228 by accidental injuries, suicide, and drowning, and 227 only by wounds received in action—a number extraordinarily low. The diseases most commonly prevalent in fleets and armies include three classes:—1. Those arising from privation and over-work. 2. Those arising from endemic or climatic causes; and, 3. Those arising from the inhalation of the germs of infectious diseases. The deaths from diseases of the first class, including typhoid fevers, scorbutic affections, dysentery, diarrhœa, and ulcer, were not numerous. The deaths from local or climatic causes were also few, for the crews of the ships were seldom exposed to miasmatic influences, and when they were landed in low swampy places, as in the Black Sea and the Sea of Azof, quinine was almost invariably given as a protective against fever, and offensive exhalations in the holds of ships were got rid of by ventilation and the use of the solution of chloride of zinc. The mortality under the third head (infectious diseases) might indubitably have been lessened, it appearing that if the fleet in the Baltic had not anchored in Baro Sound during the summer of 1854, and if that in the Black Sea had shunned Baljick and Varna in July, August, and September of the same year, the mortality from cholera would have been greatly reduced. Cholera, like smallpox, yellow fever, and other infectious diseases propagated by a specific animal poison elaborated within the human system, and thrown from it into the atmosphere, is generally destructive among numbers in proportion to the force or concentration of the exciting poison and the poverty of the vital fluids of the patients. The mortality from consumption is much greater in the army than the navy. It appears that the proportion of wounds and

injuries of all kinds to the 1,000 of mean force was greater in the Baltie than in the Black Sea fleet, but the reverse was the case as regards the rates of mortality. In the former, the total number of deaths from all kinds of injuries and drowning was 135, of which 21 were from wounds in action, 5 from gun-shot wounds received during the infamous attack on the boat's erew at Hango, 57 from drowning, and 52 from falls from the rigging and other accidental hurts. In the Black Sea fleet its total number of deaths from external violence and drowning was 286, of which 201 were killed in action, 40 were drowned, and 45 killed by external injuries. The medical evidence goes on to show that sailors are more liable to rheumatic attacks than soldiers, but this will only hold good so long as the latter are comfortably lodged in cantonments or barracks. There is no evidence to show that the climate or soil on the bald steppes of the Crimea had the least effect in producing any form of bowel complaint, although the accumulation of filth and the effluvia arising from decay of organic matters were doubtless injurious to the general health, and so predisposed the weak and the anæmic to be attacked by various forms of disease. Affections of the liver and jaundice were more numerous in the Black than in the Baltie Sea, by as much as 9·3 exceeds 3·4, but the mortality for both was nearly identical. Defective or erroneous diet, in connexion, possibly, with peculiar states of the weather, would appear to be the inducing causes of these liver complaints. The proportional number of catarrhal attacks was greater in the Baltic fleet by as much as 277 exceeds 215. Cholera was far more rife in the Black than in the Baltic Sea, for there, in one ship alone, the mortality exceeded by about one-half the total mortality in the whole force of the Baltic fleet for two years. The mortality from pulmonary complaints and diseases of the air passages was nearly the same in both seas, but the proportion was greater in the Baltic. Fevers were more common in the Black Sea, and also more fatal; in the two years there were 1720 cases of continued and remitting fever, and 1722 of the intermittent or aguish type. The mortality from cerebral diseases in the Baltic fleet was the same as in civil life, but in the Black Sea it was greater, probably owing to the indulgenee of the seamen in bad spirits.

Nuisances on the Banks of the River Thames.—Some correspondence between Mr. Goldsworthy Gurney, the Board of Works, and the Commissioners of Sewers, on the state of the river Thames and the pollution of the air on the banks of the Thames and at the Houses of Parliament, was published by order of the House of Commons on Saturday, on the motion of Mr. Esteourt, M.P. Mr. Goldsworthy Gurney, in May, June, and July last, pointed out at length in some valuable reports to the Board of Works, a number of abominable nuisanees arising from the state of the sewers in the vicinity of the New Palace at Westminster, and other causes, most injurious to the health of the members. The souree of the original evil (certain untrapped gullyholes in St. Margaret-street, New Palaee-yard, and the open mouth of Bridge-street sewer) was cut off some time since, but, although the greater nuisance is removed, the minor annoyance remains. This was pointed out in a report of 1855. It arises from untrapped sewers on the south side of the river near Lambeth Palace, besides two at Millbank, one at the Penitentiary, and two at Vauxhall-bridge. The sewers at Lambeth and Millbank are the most offensive. Another souree of pestilential effluvia, affecting the atmosphere of the Houses of Parliament, is the existenee of bone and other offensive manufactories on the south side of the river, and also exhalations from the river itself. In June last Mr. Gurney reported the river to be in so pestilential a state that it was diffieult to keep the stench out of the Houses of Parliament, and he urged the trapping the open mouths of certain sewers forthwith. Mr. Gurney's appeals to the Board of Works were seconded by Mr. R. Burrell, of the Lord Great Chamberlain's office, House of Lords, who (July 16) complained that the stench from the river compelled him to close all his windows, but that the poisonous effluvia penetrated to his rooms notwithstanding, causing headache, nausea, and loss of appetite. "The nuisance," he says, "is becoming greater annually," and common humanity, he adds, requires that the Government should seriously take up the question of the purification of the Thames. The Board of Works ordered Mr. Gardiner, on the 21st ult., to put himself in eommunieation with Mr. Gurney for the abatement of the nuisanee arising from the manufaetories on the south side of the river, and Mr. Bazalgette, the engineer, was also referred to. Ultimately it was intimated to the Board of Works by the Secretary of State (on the 29th ult.), that the prosecution of nuisances was left by the Metropolis Local Management Act to the loeal authorities of parishes, to whom, as armed with ample powers, Sir G. Grey suggested that application should be made in the cases referred to. The state of the Thames, meanwhile, remains as before.

The National Vaccine Board report that they supplied, during last year, 210,942 charges of lymph, and that 141,147 persons were reported to them as having been vaccinated, besides 7,039 vaccinated at their stations.

The American Quarantine Convention.—The following Resolutions have been adopted:—1. That there are certain diseases which may be introduced into a community by foul vessels and cargoes, and diseased crews and passengers. 2. That of these diseases, the most injurious are smallpox, and, under certain circumstanees, typhus fever, cholera, and yellow fever. 3. That when the latter diseases are introduced in this manner, their action is limited to individuals coming within their immediate influence, and they cannot become epidemic unless there exist in the community circumstances which are calculated to produce such disease, independent of the importation. 4. That these circumstances consist in the vitiated states of the atmosphere from loeal eauses, in connexion with peculiar meteorological conditions. 5. That efficient sanitary measures, including quarantine, will in most cases prevent the introduction of these diseases, and may, at any rate, disarm them of their virulence, and prevent their extension when introduced. 6. That the present quarantine regulations in most of our States are insufficient to prevent the introduetion of disease, and are prejudicial to the interests of the community. Disease may be introduced (1.) By a foul vessel, especially when measures are not taken to keep the hold free from stagnant and putrid bilge water, and more particularly when there exist in the hold droppings and drainings from putrefiable matters, which are allowed to penetrate and remain underneath the timbers of the ship. (2.) By eargoes consisting in whole or in part of rags, cotton, or other light porous substances, shipped from ports at which any malignant epidemic or disease of a contagious and infectious nature prevailed at the time when the vessel was loaded. (3.) By the filthy bedding, baggage, and clothing, of emigrant passengers, particularly when they are crowded together in insuffieient quarters, although the passengers themselves may be free from any actual disease. (4.) By the air that has been confined during the voyage in elosely-sealed and ill-ventilated holds. (5.) By squalid and diseased passengers, landed, and crowded together in unhealthy neighbourhoods, or in small, ill-ventilated dwellings. (6.) By passengers and crews who are actually labouring under, or infected with, any positively eontagious disease; and by their bedding, clothing, or baggage. The above Resolutions were adopted by a vote of eighteen in favour, two against, and one tie-vote. The States voting *aye* were Massachusetts, Rhode Island, New York, New Jersey, Pennsylvania, Delaware, and Maryland. The only State voting *no* was Virginia, the delegation from the Norfolk Board of Health, and that from the Norfolk City Counell, agreeing in this vote. The delegates from Louisiana disagreeing, the vote from that State was a tie.

Prize of the Massachusetts Medical Society.—A prize of $100 will be accorded to the best essay on the question, "To what affections of the lungs does bronchitis owe its origin." The competition is open to all eountries, and the essays must be forwarded to the Secretary, Dr. Cotting, Roxburgh, Mass., post paid, by April 15, 1858.

Paris Academy of Medicine.—The vacaney in the seetion of Natural History and Therapeutics has been filled up by the eleetion of M. Moquin-Tandon by a large majority.

The recent Death from Amylene.—M. de Castelnau, editor of the *Moniteur des Hôpitaux*, has some severe remarks on Dr. Snow's last case, characterising the explanation of the cause of death as obscure and fanciful. He protests against the further employment of a substance which, without possessing any advantages over chloroform, is evidently far more dangerous.

Importation of the Yellow Fever into France.—The Academy of Medicine of France being requested by the Minister of Commerce to report upon an alleged instance of the importation of the yellow fever into Brest by the corvette

Fortune arriving from the Antilles, September, 1856, appointed MM. Louis, Gérardin, and Beau as a committee to investigate the facts. Between the 1st August and the 7th September, *i. e.* thirty-eight days, of 212 persons, 118 were attacked, and 56 died. On the vessel's arrival at Brest, fourteen *employés* boarded her, and of these two contracted disease, having all the signs of yellow fever, and died. Before this, however, the pilot had also contracted it, but recovered. Some of the practitioners at Brest believed the two men to have died of typhoid fever; but M. Beau, examining all the evidence, came to the conclusion, which was sanctioned by the Academy, that the cases were all examples of yellow fever; and that, under different atmospheric conditions than prevailed in September, the disease might have become propagated in Brest by successive transmissions. Singular enough, also, in 1802 three persons also contracted this disease, after communicating with the squadron in which it prevailed, and of these two died.

Over-house Telegraph between London-wall and Cornhill.—There may now be seen outstretched over the thronged City thoroughfares, from London-wall across Throgmorton-street and Broad-street and Cornhill, a thin wire extending horizontally through the air. It is the first attempt of the kind made in the metropolis for the establishment of private house-to-house telegraphs. It runs from the establishment of Messrs. Waterlow, the well-known stationers in London-wall, to their establishment in Birchin-lane, Cornhill, and is used to facilitate the transaction of their business. The wire is of steel, No. 16 gauge, and one-third of a mile in length, and has cost, with all the apparatus, about £40. Mr. Sydney Waterlow, who has carried out the novel idea, has done so with the further view of showing how practically as well as economically the same system may be adopted in connexion with a plan of police and fire telegraphs throughout the metropolis.

The Chair of Materia Medica in Queen's College, Belfast, vacant by the death of the late Dr. Stewart, has been filled up by the appointment of Dr. Seaton Reid. The nomination of Dr. Reid to this professorship will be regarded with general satisfaction.

Sale of Poisons Bill.—This Bill, as amended by the select committee of the House of Lords, has been printed. The list of "poisons," defined as such, has been much reduced. It now includes arsenic and its compounds, corrosive sublimate (the bichloride of mercury) and its solutions, the poisonous vegetable alkaloids and their salts, Prussic acid, the cyanide of potassium, the essential oil of bitter almonds, and mixtures containing it, cantharides, aconite and its preparations, opium (crude or in tincture, extract, or powder), chloroform, oxalic acid, and salt of sorrel, nux vomica (whence strychnine is derived), tartarized antimony and cocculus indicus. Poison must only be sold to a person of full age, in presence of a witness of full age, and upon the production of a certificate; and after 185— no poison can be sold without licence except by a regular Medical practitioner. It would appear, however, that poison may be sold to any person who is not unknown to the vendor.

Queen's College, Belfast.—The Professorship of Materia Medica, vacant by the death of Dr. Horatio Stewart, has been filled by the appointment of Dr. Seaton Reid to the chair.

The Meeting of German Naturalists and Physicians at Bonn in 1857.—Professors N. Nöggerath and Kilian, as the managers of the thirty-third meeting of Naturalists and Physicians have just issued their invitation to the scientific world, announcing that the assembling commences on the 18th and terminates on the 24th September. They state that Bonn, not only on account of the beauty of its situation, but also its scientific appliances, is well deserving a visit; and they promise a hearty reception to every friend of science, come he from where he will. They undertake the providing accommodation at hotels or in lodgings for those who communicate with them previously to that effect.

The Eleventh Report of the Board of Supervision states that the total cost of Poor-law administration in Scotland for the year ending May 14, 1856, was £629,348. The number of "registered poor" on that day was 79,973; and of casual or unregistered poor 38,020.

Professor Knowles has resigned the office of Surgeon to the Queen's Hospital, Birmingham.

We learn that yellow fever in the West Indies has abated, but that it had destroyed upwards of 600 sailors during the last three months.

A Chancellor's Oration.—The Duke said, in the course of the evening, "When I went to Oxford as Chancellor, I was very much puzzled when they told me I was to make a Latin speech at the inauguration. Now, any speech is difficult, but a Latin one was impossible; so in this dilemma I applied to my Physician, as most likely, from his prescriptions, to know Latin, and he made me a speech which answered very well. I believe it was a very good speech, but I did not know much of the matter."—*Raikes' Journal.*

Black and White Twins.—On the night of the 20th of February, 1857, Dr. Woodward was called to accouch a negro woman in the vicinity of Nashville. Her labour was natural, attended by no extraordinary symptoms. About seven hours after his arrival a black female child of ordinary size was born. An hour had scarcely elapsed before the birth of a white male child (dead) of larger size. The mother is a very black, unmixed negro. The children certainly are the offspring of two fathers, the one black, the other white; as the second child was not an albino, but owed its colour to a cross of the Caucasian and African races.—*Nashville Journal.*

The Boron Diamond.—That diamond is nothing but the substance of charcoal, or carbon in a crystallised state, is a fact pretty generally known; but that there is another elementary substance, called boron, which bears a strong analogy to carbon, is less so, perhaps, because boron has hitherto been obtained in such small quantities that it is still a curiosity even in the laboratory of the chemist. MM. Wöhler and Deville have lately made most interesting experiments upon this body, from which it appears that it can exist in three states, exactly corresponding to those of carbon—namely, the amorphous, the graphitic, and the crystallised state. In order to obtain the latter, 100 grammes (3½ ounces) of boracic acid and 80 of aluminum are exposed, during five hours, to a violent fire in a black crucible coated with charcoal-powder. The mass is then left to cool; and on breaking the crucible, two distinct strata come to view—one consisting of vitrified boracic, or boracic acid containing some alumina; and the other of aluminum in a metallic state, mixed up with crystals of boron. To separate the latter, this metallic mass is treated with boiling caustic soda, to dissolve the metal; then with boiling hydrochloric acid, to carry off the iron which may have been separated from the plumbago of the crucible; and lastly, with a mixture of nitric and hydrofluoric acid, to dissolve the silicium left by the soda. After this, the boron is obtained pure in three varieties of crystals—namely, 1. Black and opaque laminæ, which will cut diamond, though not so well as diamond-powder; 2. Long prismatic crystals, perfectly transparent, and as brilliant as diamonds, but not so hard as the former variety; if without flaws they might be used for jewellery; 3. Very minute, but distinct crystals of a red chocolate colour, and quite as hard as diamond. Used as diamond-powder, they give a fine polish.—*Galignani's Messenger.*

VITAL STATISTICS OF LONDON.

Week ending Saturday, August 15, 1857.

BIRTHS.

Births of Boys, 875; Girls, 743; Total, 1618.
Average of 10 corresponding weeks, 1847-56, 1448·4.

DEATHS.

	Males.	Females.	Total.
Deaths during the week	607	580	1187
Average of the ten years 1847-56	...	...	1255
Average corrected to increased population	...	...	1380
Corrected average for corresponding week in ten years 1847-56	630·1	624·4	1254·5
Deaths of people above 90	...	...	...
Deaths in 13 General Hospitals	59	24	83

DEATHS IN SUB-DISTRICTS FROM EPIDEMICS.

	Population. 1851.	Measles.	Scarlatina	Hooping-Cough.	Diarrhœa.	Cholera.	Typhus.
West	376,427	3	1	3	47	6	5
North....	490,396	6	4	9	49	5	5
Central ..	393,256	3	2	7	28	2	8
East	485,522	15	8	12	57	2	15
South	616,635	..	1	7	63	6	6
Total..	2,362,236	27	16	38	244	21	39

METEOROLOGY.

From Observations at the Greenwich Observatory.

Mean height of barometer	29·793 in.
Mean temperature	63·7
Highest point of thermometer	83·6
Lowest point of thermometer	50·5
Mean dew-point temperature	57·7
General direction of wind	S.W.
Whole amount of rain in the week	1·52
Amount of horizontal movement of air in the week ...	270 miles

DEATHS REGISTERED DURING THE WEEK.

Causes of Death.	In the Week ending Saturday, Aug. 15, 1857. Deaths of Persons. AT ALL AGES. Mean temp.	Under 20 Years of Age.	At 20 and under 40 Years of Age.	At 40 and under 60 Years of Age.	At 60 and under 80 Years of Age.	At 80 Years of Age and Upwards.	Averages of Temperature and Deaths in 10 Weeks.
Mean Temperature	63°·7						62°·0
All Causes	1187	699	155	170	137	26	1254 5
Specified Causes	1183	695	155	170	137	26	1248·7
Diseases:—							
1. Zymotic Class	421	363	16	25	16	1	558·5
2. Dropsy, Cancer, and others of uncertain seat	39	4	10	13	10	2	43·7
3. Tubercular Class	193	77	72	39	5	..	181·1
4. Of Brain, Nerves, etc. ..	117	51	14	20	28	4	113·0
5. Of Heart, etc.	30	3	5	9	12	1	30·0
6. Of Respiratory Organs ..	86	46	5	14	19	2	81·5
7. Of Digestive Organs ..	82	35	14	20	13	..	66·8
8. Of Kidneys, etc.	12	..	2	6	4	..	11·8
9. Of Uterus; viz. — Puerperal Disease, etc. ..	13	..	5	7	1	..	7·3
10. Of Joints, Bones; viz.— Rheumatism, etc. ..	6	4	..	..	2	..	7·7
11. Of Skin, etc.	2	1	..	..	..	1	2·1
12. Malformations	1	1	..	..	..	..	2·8
13. Debility from Premature Birth, etc.	32	32	..	..	..	..	28·9
14. Atrophy	57	49	..	3	4	1	39·6
15. Age	31	..	..	..	18	13	36·3
16. Sudden	3	2	..	1	..	..	5·3
17. Violence, Privation, etc...	58	27	12	13	5	1	32·3
Causes not specified.. ..	4	4	..	..	..	..	5·8

TO CORRESPONDENTS.

We shall publish in our next Number a Memoir of the late Dr. Marshall Hall, by a gentleman who possessed peculiar opportunities of making himself acquainted with the life, character, and researches of the late distinguished Physician and Physiologist.

Scotus.—The whole of the Examiners of the University of London are elected annually. Some of the Examiners are members of the Senate.

A Junior Clerk.—We wonder at the question addressed to us, after the late exposure in the Bloomsbury County Court. You should avoid the whole herd of the advertising fraternity if you wish to regain your health, and save yourself from ruin.

An Inhabitant of the Coast.—We cannot give any definite information as to the chances of success which a Medical man would have in settling in the locality in question. If he had a good London connexion it might be worth while to try the experiment. Be very cautious in buying a practice.

Mr. Barrow.—Arsenic itself is not used in medicine, and the pharmaceutical preparation which contains it is purposely coloured to prevent accidents. Indeed, white arsenic is so little employed for useful purposes that retail chemists might perfectly well discontinue its sale without injuring their own profits, and with great advantage to the public. In the arts, white arsenic is used for the manufacture of certain kinds of glass, and metallic arsenic is employed to alloy lead in making small shot.

The Westminster Hospital.—We are requested to state that the operation-day at the Westminster Hospital has been changed from Saturday to Tuesday at 2 p.m.

Mr. H. H. Watson.—We have received the papers containing Reports of the late trial for poisoning by arsenic at the Lancaster Assizes, and we thank Mr. Watson for his courtesy in sending them. Although the Reports are rather fuller than that which we had previously seen, they do not alter the facts of the case, nor do they in any way invalidate the remarks which we made in our Editorial department last week.

Erinensis.—The following effusion is from a Dublin Journal. Our readers have heard of the author before :—

"Medical Queries.—1. Who *has* fought the fight and triumphed in Medical Reform for the past twelve years? Hayden and Palmer. 2. Who *has* gained public confidence from tested experience for the past twenty years in this city? Hayden and Palmer. 3. What will now satisfy the public? Is it age without qualification—is it nominal professional standing without experience in practice?—Dr. Palmer, M.D., L.R.C.S.I. et Acer. R.L.H., the Now Medical Reformer, 32, Merrion-square North, corner of Holles-street. Dr. P.'s Established System—Advice and Medicine, 5s.; Consultation by Letter, 10s.; Night Calls, £1.

"Dr. P.'s Hours at Home, 9 to 11 Morning; 1 to 4 Mid-day; and on the Evenings of Tuesday, Thursday, and Saturday, from 7 to 9 o'clock. Timely notice is requested for all out calls."

A Young Surgeon.—He is eligible; the particulars of pay may be learned by application to the Director of the Army Medical Department, Whitehall-yard, London.

Dr. William Ogle.—The subject shall receive attention.

COMMUNICATIONS have been received from—

Mr. W. Adams; Mr. T. Wharton Jones; The General Board of Health; Mr. W. S. Cox; Mr. P. C. Price; Mr Robinson; Mr. Maunder; Mr. T. F. Greenwood; Dr. William Ogle; Erinensis; Mr. William Hewitt; Mr. Charles Hunter; Mr. H. H. Watson; Mr. J. Ferguson; Mr. Toynbee; Mr. Frederick Jowers; Scotus; A Junior Clerk; Mr. Barrow; An Inhabitant of the Coast; The Westminster Hospital; Mr. R. Jones; Mr. L. Buckland; Mr. Millman; Mr. Moore; Mr. J. Brown; Dr. J. Campbell; Mr. G. Southam; Mr. Bogle; Mr. Caldwell; Mr. R. O. Clark; Mr. W. Newman.

APPOINTMENTS FOR THE WEEK.

22. *Saturday (this day).*

Operations at St. Bartholomew's, 1½ p.m.; St. Thomas's, 1 p.m. King's, 2 p.m.; Charing Cross, 1 p.m.

24. *Monday.*

Operations at the Royal Free Hospital, 1 p.m.; Metropolitan Free Hospital, 2 p.m.; Orthopædic Hospital, 3 p.m.

25. *Tuesday.*

Operations at Guy's, 1 p.m.; Westminster, 1 p.m.

26. *Wednesday.*

Operations at University College Hospital, 2 p.m.; St. Mary's, 1 p.m. Orthopædic Hospital, 3 p.m.

27. *Thursday.*

Operations at St. George's, 1 p.m.; Middlesex, 12½ p.m.; Central London Ophthalmic, 1 p.m.; London, 1½ p.m.

28. *Friday.*

Operations at the Moorfields Ophthalmic, 10 a.m.; Westminster Ophthalmic, 1½ p.m.

EXPECTED OPERATIONS.

King's College.—Saturday (this day).—By Mr. Fergusson: Operation for Prolapsus Uteri, Removal of Tumour from Breast, and Removal of Loose Cartilage from Knee-joint. By Mr. Partridge: Varicocele and Tenotomy.

ORIGINAL LECTURES.

LECTURE
ON THE
NERVOUS STRUCTURES AND THE ACTION OF THE HEART.

BEING ONE OF THE LUMLEIAN LECTURES READ BEFORE THE
Royal College of Physicians, March, 1857.

By ROBERT LEE, M.D. F.R.S.

Mr. President,—There were three great problems in physiology which the immortal discoverer of the circulation of the blood vainly attempted to solve, and which the state of anatomical science at the time he lived rendered it impossible for him to solve. The first of these was the cause of the action or motion of the heart; the second was the cause of human parturition—the source of the exquisite sensibility, and the prodigious contractile power of the uterus in labour; the third problem, which Fabricius and Harvey had both in vain attempted to solve, was the manner in which after delivery the gravid uterus returned in so short a time to its pristine condition before conception had taken place. We are now able, I believe, to give a complete solution of these three problems.

It was chiefly by observing the motions of the heart, and the construction of its valves, and those of the veins, that the most difficult of all the problems in physiology, the circulation of the blood in the adult and fœtal states, was completely solved by Harvey. "When first I applied my mind," he says, "to observation, from the many dissections of living creatures as they came to hand, that by that means I might find out the use of the motion of the heart, and things conducible to creatures, I straightwayes found it a thing hard to be attained, and full of difficulty; so with Fracastorius I did almost believe that the motion of the heart was known to God alone; for neither could I rightly distinguish which way the diastole and systole came to be, nor when nor where the dilatation and contraction had its existence. And that by reason of the quickness of the motion, which in some creatures appeared in the twinckling of an eye, like the passing of lightning; so that sometimes the systole did present itself to me from this place, and the diastole from that place, sometimes just contrary, sometimes the motion was various, sometimes confus'd; whence I was much troubled in mind, nor did I know what to resolve upon myself, or what belief to give to others; nor wonder'd I at that which Andreas Laurentius writes, that the motion of the heart was as perplexing as the ebbing and flowing of Euripus had appeared to Aristotle. At last, using daily more search and diligence, by often looking into many and several sorts of creatures, I did believe *I had hit the nail on the head*, unwinded and extricated myself from this labyrinth, and thought I had gained a knowledge both of the motion and use of the heart, together with that of the arteries which I did so much desire; since which time I have not been afraid, both privately to my friends and publicly in my Anatomy Lectures, to deliver my opinion. "Ex quo non solum privatim amicis sed etiam publicè in prælectionibus meis anatomicis Academico more, proponere meam in hac re sententiam non verebar."

"I remember," says the Hon. Mr. Boyle, "that when I asked Harvey, in the only discourse I had with him, what were the things which induced him to think of the circulation of the blood, he answered me, that when he took notice that the valves in the veins of so many parts were so placed that they gave free passage to the blood towards the heart, but opposed the passage of the venal blood the contrary way, he was led to think that so provident a cause as nature had not placed so many valves without design; and no design seemed more probable than that, since the blood could not, because of the interposing valves, be sent by the veins to the limbs, it should be sent through the arteries, and return through the veins, whose valves did not oppose its course that way."

Fabricius discovered the valves in the veins in 1574, and gave delineations of them in the treatise now on the table before you, entitled De Venarum Osteolis.

"The discoverer of these valves," says Harvey, "did not rightly understand their use, nor have succeeding anatomists added anything to our knowledge of them; for their office is by no means explained when we are told that it is to hinder the blood, by its weight, from flowing into the inferior parts; for the edges of the valves in the jugular veins hang downward, and are so contrived that they prevent the blood from rising upwards; the valves, in a word, do not invariably look upwards, but always towards the trunks of the veins, invariably towards the seat of the heart. I, and indeed others, have sometimes found valves in the emulgent veins, and in those of the mesentery, the edges of which were directed towards the vena cava and the vena porta. Let it be added that there are no valves in the arteries (save at their roots), and that dogs, oxen, etc., have invariably valves at the divisions of their crural veins, in the veins that meet towards the top of the os sacrum, and in those branches which come from the haunches, in which no such effect of gravity, from the erect position, was to be apprehended. Neither are these valves in the jugular veins for the purpose of guarding against apoplexy, as some have said; because in sleep the head is more apt to be influenced by the contents of the carotid arteries; neither are the valves present, in order that the blood may be retained in the divarications, or smaller trunks and minute branches, and not to be suffered to flow entirely into the more open and capacious channels, for they occur where there are no divarications; although it must be owned that they are most frequent at the points where branches join. Neither do they exist for the purpose of rendering the current of blood more slow from the centre of the body: for it seems likely that the blood would be disposed to flow with sufficient slowness of its own accord, as it would have to pass from larger into continually smaller vessels, being separated from the mass and fountain head, and attaining from warmer into colder places." "But the valves are solely made and instituted lest the blood should pass from the greater into the lesser veins, and either rupture them, or cause them to become varicose; lest, instead of advancing from the extreme to the central parts of the body, the blood should rather proceed along the veins from the centre to the extremities; but the delicate valves, while they readily open in the right direction, entirely prevent all such contrary motion, being so situated and arranged that if anything escapes, or is less perfectly obstructed by the cornea of the one above the fluid passing, as it were, by the chinks between the cornea, it is immediately received on the convexity of the one beneath, and so is effectually hindered from getting farther."

This was the key to the whole discovery of the circulation of the blood, and the demonstrative evidence furnished by Harvey of the truth of the doctrine, which ought and must have immediately satisfied all whose minds were open to conviction, but then, there were many men who refused to examine the evidence, and would not believe what they saw—they loved the darkness better than the light. Fabricius, it is obvious, was a mere anatomist, and it was scarcely possible for him, if he ever opened a large vein, to miss seeing the valves; "but he did not rightly understand their use." Harvey was the most profound anatomist and physiologist that ever lived in any age or country, and one of the most distinguished inductive philosophers England has ever produced; although it is reported that he was no great admirer of the works of Lord Bacon (who never himself made any original discovery in science), and which he considered better fitted for wordy quibbling lawyers, than for men engaged in exploring the deep and hidden secrets of nature. "Le livre d'Harvey est un chef-d'œuvre," says M. Flourens; "ce petit livre de cent pages est le plus beau livre de la physiologie."

"De la découverte de la circulation du sang date la physiologie moderne. Cette découverte marque l'avènement des modernes dans la science. Jusqu'alors ils avaient suivi les anciens. Ils osèrent marcher d'eux-mêmes. Harvey venait de découvrir le plus beau phénomène de l'économie animale. L'antiquité n'avait pu s'élever jusque-là. Que devenait donc la parole du maitre? L'autorité se deplaçait. Il ne fallait plus jurer par Galien et par Aristote; il fallait jurer par Harvey."

How little Harvey desired this blind homage the following words in his Dedication will prove: "For true philosophers, who are only eager for truth and knowledge, never regard themselves as already so thoroughly informed, but that they welcome further information from whencesoever it may come; nor are they so narrow-minded as to imagine any of the arts or sciences transmitted to us by the ancients in such a state of forwardness or completeness, that nothing is left for the ingenuity and industry of others; very many, on the contrary, maintain that all we know is still infinitely less than all that still remains unknown; nor do philosophers pin their faith to others' precepts in such wise that they lose their liberty, and cease to give credence to the conclusions of their proper senses. Neither do they swear such fealty to their mistress, Antiquity, that they openly, and in sight of all, deny and desert their friend *Truth*."

Harvey, as Hippocrates had done, considered the heart to be a muscular organ. In the dedication of his Treatise to Charles I., Harvey says, "Cor animalium, fundamentum est vitæ, princeps omnium microcosmi sol; a quo omnis vegetatio dependet, vigor omnis et robor emanat." Harvey considered the motions of the heart to be muscular: "It becomes erect," he says, "hard, and of diminished size during its action: the motion is plainly of the same nature as that of the muscles." "Quoniam erigi, rigorari, minorari et durescere in omni motu videtur; ipsiusque motum esse, qualem musculorum, dum contractio fit secundum partium neurosarum et fibrarum." He inferred therefore, on physiological grounds, that the heart, like all other muscular organs, was supplied with nerves; but nothing is directly stated by Harvey respecting the cardiac nerves, and he does not positively state that the heart has nerves, and no allusion was made to cardiac ganglia by any anatomist until two centuries had elapsed. In a pigeon Harvey observed, that after both auricles and ventricles had ceased to pulsate, by keeping the warm finger moist with saliva a short time upon the heart, it recovered new strength and life, so that both ventricles and auricles pulsated, contracting and relaxing alternately, recalled as it were from death to life." "Hippocrates did not without reason," says Harvey, "call it a muscle, seeing the action and function of both is the same, viz. to contract itself, and move something else, that is, the blood."

The contractions of the heart and the circulation of the blood having been completely demonstrated, Harvey's attention was next called to the source of the sensibility and contractile power or force by which the action of the heart is sustained during life. That this subject had received from him all the consideration its importance required, is clearly established by the following striking and very beautiful passage in chapter xvii.

"Nor are we the less to agree with Aristotle in regard to the sovereignty of the heart; nor are we to inquire whether it receives sense and motion of the brain; whether blood from the liver; whether it be the origin of the veins and of the blood; and more of the same description. They who affirm these propositions against Aristotle, overlook or do not rightly understand the principal argument, to the effect that the heart is the part which first exists, and that it contains within itself blood, life, *sensation*, *motion*, *before either the brain or liver were in being*, *or had appeared distinctly*, *or at all events before they could perform any function*. The heart ready furnished with its proper organs of motion, like a kind of internal creature, is of a date anterior to the body; first formed, nature wills that it should afterwards fashion, nourish, preserve, complete the entire animal, as its work and dwelling-place. The heart, like the prince in a kingdom, in whose hands lie the chief and the highest authority, rules over all; it is the original and foundation from which all power is derived, on which all power depends in the animal body."

Harvey died three years before the establishment of the Royal Society of London, which, in 1660, was constituted by Charles II. a body corporate, "for the promoting of the knowledge of natural things and useful arts by experiments, to the glory of God and the good of mankind." Anatomy was considered as one of the most important objects to which the Fellows of the Society could direct their attention. Alexander Spratt, in his History of the Royal Society, says, "Many of the most judicious of our Physicians have contributed their purses, their hands, their judgments, their writings." The doctrine of the circulation of the blood was at that time almost universally admitted by all who were not blinded by prejudice and envy, but the cause of the heart's action had not been explained, and the greatest anatomists and physiologists in all countries have ever since been engaged in the investigation of this subject, and the Transactions of the Royal Society, or the Philosophical Transactions, as they are called, contain the details of the most important of these inquiries.

The fifth volume of the Philosophical Transactions, published in 1670, contains a paper by the Honourable Mr. Boyle, entitled, "Of the Motion of the Separated Heart of a Cold Animal in the Exhausted Receiver." The heart beat for an hour, when it became languid; by breathing upon it, it again became active in its contractions.

Another paper, by Mr. Temple, was published in the seventh volume, entitled, "Observations upon the Motions of the Hearts of Two Urchins, after their being cut out."

"A Discourse concerning some Influence of Respiration on the Motion of the Heart hitherto unobserved," by Dr. Drake, was published in vol. xxiii. in 1702.

Dr. Drake observes, that the heart, by its constant and regular alternations of contraction and relaxation, differed extremely from all other muscles. "Anatomists," he says, "finding nothing peculiar in the structure which should necessarily occasion these actions, have been extremely perplexed to find out the cause of it."

Borelli about this time, in his work entitled "Economia Animalis," computed the motive power of the heart to be equal to, or to surmount that of a weight of three thousand pounds. The obstacles to the motion of the blood through the arteries he deemed equivalent to one hundred and eighty thousand pounds. This supposed stupendous power of the heart he ascribed to the "energy of percussion." What was meant by this he did not explain. Many observations have since been made, without any positive result, on the forces by which the blood is circulated. Hales, in 1769, showed that under the pressure of a column of water nine feet and a half in height, fluid might be made to pass from the carotid artery to the jugular vein through the capillary system. Valentin considers that the left ventricle exerts a force equal to one-fiftieth of the weight of the body. The experiments of Poiseulle and others are known to all with the instrument called hæmadynamometer. It is absolutely impossible to estimate the force of the heart; the force must be equal to the resistance, but this can never be correctly ascertained; it must be constantly varying, and therefore the experiments, though curious, are of no value, and throw no light on the problem which Harvey vainly attempted to solve, viz., the source of the sensitive and contractile power of the heart.

Dr. Lower, in 1667, ascribed the diastole of the heart to a motion of *restitution*, which account, says Dr. Drake, "gives me no satisfaction." "The heart of an animal," says Dr. Lower, "*bears a great analogy* to the *pendulum of those artificial automata*, *clocks and watches*, while its motion is performed like that of other muscles, the blood doing the office of PONDUS."

Dr. Drake being unable to assign any internal cause for the heart's action, and being very little satisfied with these words without meaning, *pondus*, *percussion*, and *restitution*, says, "There must be some external cause found to produce this great phenomenon, which cause must be either in the air or atmosphere."

A Discourse of the Power of the Heart, in Latin, addressed to Dr. Mead by Dr. Jurin, in vol. xxx., and a letter in defence of his doctrine of the power of the heart, against the objections of Dr. Keil, by Dr. Jurin, appeared in the same volume of the Philosophical Transactions.

A short account of Dr. A. Stewart's paper concerning the muscular structure of the heart, by Dr. Mortimer, was published in vol. xli. Dr. Stewart supposes that the contraction of the heart is not caused so much by the influx of the nervous spirits as by the influx of the arterial blood through the coronary arteries into the substance of the heart.

It would be difficult to tell how many Croonian Lectures have been read before the Royal Society of London on muscular motion and the heart's action, and how little light was thrown upon these subjects by these lectures.

Between 1776 and 1782, Mr. John Hunter read six Croonian Lectures, and the following were his singular conclusions, that "The voluntary and involuntary muscles having their quantity of motion in an inverted proportion to their quantity of nerves, is a strong argument against the nerves being the cause of muscular motion." "If it is asked," he says, "why the involuntary parts have nerves at all, the answer may be given, that it is not for the common actions, but to keep up the connexion between the whole, for without them an animal would become two distinct machines, and one might be acting very contradictory to the other." Mr. Hunter believed "that the brain and nervous system had nothing to do with the actions of a part. Haller, Wrisberg, Soemmering, and other distinguished anatomists, who also flourished towards the middle or close of the last century, entertained similar opinions, and asserted that the contractions of the heart did not depend upon nervous influence.

In 1790 a Croonian Lecture on Museular Motion was read by Sir Gilbert Blane, but the problem was not solved; and Sir Everard Home took up the torch to little purpose, and read a Croonian Lecture in 1795, a second in 1800, a third in 1801, a fourth in 1802, a fifth in 1805, a sixth in 1806, a seventh in 1818, an eighth in 1819, a ninth Croonian in 1820, a tenth in 1822, an eleventh in 1823, and a twelfth Croonian, "On the Existence of Nerves in the Placenta," in 1825.

In 1805 a Croonian Lecture on Muscular Motion was read by Sir Anthony Carlisle; and a second in 1806, on the Arrangement and Mechanical Action of the Muscles of Fishes.

In 1808 Dr. Thomas Young read a Croonian Lecture, "On the Functions of the Heart and Arteries." Since the degree and manner in which the circulation of the blood depends upon the muscular and elastic powers of the heart and arteries are questions belonging to the most refined departments of hydraulics, the author has lately submitted to the Society those general principles upon which he designs, in the present lecture, to inquire—1. What would be the nature of the circulation if the vessels were as inelastic as glass or bone? 2. In what manner the pulse would be transmitted if the tubes were merely elastic? 3. What actions may be ascribed to these muscular coats; and, lastly. What disturbances are occasioned in different kinds of fevers and inflammations?

In 1809 Dr. Wollaston read a Croonian Lecture, which has no title in the abstracts of the "Philosophical Transactions;" its object may, however, be understood from the following passage:—"Since the remarks which the author has connected together on the present occasion as tending, each of them, to promote the design of Dr. Croone, do not appear to bear any direct relation to each other, he divides the lecture into three distinct heads, the first of which contains an observation and some experiments on the duration of muscular action; in the second he traces the origin of sea-sickness from a mechanical cause deranging the circulation of the blood; in the third he offers a mechanical explanation of the advantages derived from riding, and the various modes of carriage exercise. With regard to the duration of muscular action, the author is of opinion that each effort, apparently single, consists in reality of a great number of contractions repeated at extremely short intervals. He infers the existence of these alternate motions from a sound observed upon inserting the extremity of the finger into the ear. The sound resembles that of carriages at some distance passing rapidly over a pavement. The sound is not perceived when the force applied to stop the ear is not muscular, unless the action of some distant muscle be communicated through some medium capable of conveying its vibrations." Bichat had stated that the brain is not directly necessary to the action of the heart; and that, when the functions of the brain were destroyed, the circulation of the blood ceased only in consequence of the suspension of the respiration.

In 1811 a Croonian Lecture was read by Mr. B. C. Brodie, "On some Physiological Researches respecting the Influence of the Brain on the Action of the Heart, and on the Generation of Animal Heat." The conclusions were:—

1. That the influence of the brain is not directly necessary to the action of the heart.

2. That the interruption of the circulation is owing to the stoppage of respiration.

3. That when the influence of the brain is cut off, the secretion of urine ceases, and the production of animal heat is discontinued, even if the blood is preserved of its fluid and red colour.

4. That, on the contrary, the coldness of the air applied is communicated to the blood, and thereby diffused to distant parts of the body.

In 1812 an Essay was published by Mons. Le Gallois, in which it was asserted, as the result of experiments on the brain, that the cause of the heart's action resides in the spinal cord,—not in any particular portion of it, but in the whole of the cord. Le Gallois inferred from his experiments, that the sympathetic is not an independent nerve; that it is not merely connected with the spinal cord, but that it arises from it, and that it is the peculiar character of this nerve to place all parts to which it is distributed under the motor influence of the whole spinal cord. The Committee appointed to examine Mons. Le Gallois' statements believed that these experiments solved all the difficulties which had before existed respecting the motion of the heart; for instance, the influence of the passions on the heart, its independence of the will, and the persistence of the circulation up to the time of birth in acephalous monsters.

In 1815 a paper by Dr. W. Philip was published in the "Philosophical Transactions," entitled "Experiments made with a view to ascertain the Principle upon which the Action of the Heart depends, and the Relations which subsist between that Organ and the Nervous System."

"Mons. Le Gallois," says Dr. W. Philip, "maintains that, though the destruction of the brain does not impair the action of the heart, it is immediately and extremely debilitated by destruction of the cervical part of the spinal marrow. Dr. Philip did not find these to be the case in his experiments, of of which the first ten, performed on rabbits, relate almost exclusively to the effect of destroying the spinal marrow. "The heart of the frog," says Dr. Philip, "retains its power long after the brain and spinal marrow are removed."

In 1815 a paper by Mr. Clift, entitled "Experiments to ascertain the Influence of the Spinal Cord on the Action of the Heart in Fishes," was published in the "Philosophical Transactions." These experiments were undertaken to ascertain the truth or fallacy of Mons. Le Gallois' conclusions respecting the action of the heart being dependent on the spinal marrow. His conclusions were:—

1. That the muscles of the body of a carp can be thrown into powerful action four hours after the brain and heart are removed.

2. That the muscles lose all power as soon as the spinal marrow is destroyed.

3. That, whether the heart is exposed or not, its action continues long after the brain and spinal marrow are destroyed, and still longer when the brain is removed without previous injury to its substance.

5. That the action of the heart is in general accelerated for a few beats by injuries to the brain or spinal marrow after the brain has been separated, renders the action of the heart slower for a few beats.

The importance of the subject now under our consideration may be inferred from the labours of the distinguished anatomists and physiologists to which reference has now been made, and the difficulty of solving the problem of the cause of the action of the heart, the source of its sensitive and contractile power, clearly understood. Until a very recent period we might have been induced to adopt the words of Harvey as the only safe conclusion at which it was possible to arrive upon the subject: "I straightways found it a thing hard to be attained, and full of difficulty, so with Fracastorius I did almost believe that the motion of the heart was known to God alone." Since the year 1825, the Fellows of the Royal Society appear to have abandoned the subject to its fate, or to have adopted the opinion of Fracastorius, and allowed the Croonian Lectures to die of extreme old age or from pure inanition.

But none of those great men whose names have been mentioned appear to have made any attempt to determine to what extent the human heart was endowed with nervous structures, and whether its action could not be referred to their influence, independent of the brain and spinal cord. But this had been done by others, and had led to the erroneous conclusion that the muscular walls of the heart had either no nerves, or were supplied with them in a very sparing manner. It does

not appear to have occurred to any individual that the heart might be endowed with a great system of ganglia and nerves, and to which as nervous centres all the phenomena of the heart's action might be referred.

The human heart was considered by the Greek philosophers as one of the noblest organs of the body, and to be copiously supplied with nerves, but the fact had not been demonstrated by any of the Greeks. Galen asserted that the heart receives only one small filament of nerve from the brain, a proof that he had never examined the nerves of the heart. Vesalius has represented in an engraving a very minute branch of a nerve proceeding from the recurrent nerve to the heart. In 1523, Fallopius stated that he had demonstrated to his pupils a great plexus of nerves lying between the aorta and pulmonary artery. "A quo abundans copia nervosæ materiæ totam cordis basim amplexetur, perque ipsam plures propagines parvorum nervorum dispergit." Fallopius being aware that the kidneys, stomach, liver, and spleen are all abundantly supplied with nerves, believed that Vesalius had committed an error by representing only one small nerve proceeding to the heart. Harvey has in no part of his works referred to the works of Fallopius, and I believe no subsequent writer has referred to this statement of Fallopius, nor was I aware that it had been made before 1846.

In 1792, B. J. Behrends, a pupil of Professor Soemmering, published a memoir entitled "Dissertatio qua demonstratur cor nervis carere," in which it was admitted that nerves accompany the coronary arteries; but it is strongly asserted that the muscular coat of the heart is entirely destitute of nerves. "Ac primo quidem nervorum cordis examini scrupulosius intendens, tum observando, tum analogiæ concludendo didici nullos omnino nervos, ne surculum quidem in ipsam cordis carnem dispergi."

In 1794 Scarpa's plates were published, entitled "Tabulæ Neuralogicæ ad illustrandam Historiam Anatomicam Cardiacorum Nervorum." This splendid work, dedicated to the Royal Society of London, contains five engravings of the nerves of the human heart, which are now placed before you, and if these be examined it will be seen that there are branches accompanying the coronary arteries as in Behrend's plate, from the base to the apex of the heart; but few if any branches of nerves are seen passing into the muscular structure of the heart unconnected with the blood vessels, and in the deep substance of the heart none are seen. In these plates the nerves are only represented on the surface of the heart, and scarcely any branches except those accompanying the coronary arteries. The cardiac nerves of the horse and heifer are represented, you perceive, in greater numbers, and on one of the branches accompanying the left coronary artery there is represented a distinct ganglion. At the root of the right coronary artery there is also represented a distinct ganglionic enlargement on the nerves accompanying it on the human heart. On the branches of those nerves which do not accompany the arteries there are no ganglia, you see, represented in any part of their course; but in the text, page 2, it is said:—"Præcipue autem nervorum cardiacorum trunci ad basim cordis, et inter majora vasa arteriosa intumescunt in vera et genuina ganglia; in eque autem et bove etiam in iis ramis cardiacorum, qui per cordis superficiem reptant nonnulli divaria corpora gignaret."

In Mr. Swan's folio engravings, published in 1830, now likewise placed before you, only a few small branches of nerves, you see, have been figured, which accompany the coronary arteries, and the muscular substance of the heart is represented as completely destitute of nerves. Monsieur Chassaignac, who translated Mr. Swan's Demonstration of the Nerves of the Human Body in 1838, has repeatedly denied in the most positive manner that any nerves, except those which accompany the coronary arteries, have yet been demonstrated in the heart. "Anatomie n'a constate jusqu'à présent, dans le cœur," he observes, "que des nerfs artériels. L'existence de filets nerveux indépendants des vaisseaux propres au tissu charnu est encore a démontrer."

In 1839, Monsieur Remak stated that he had discovered in the human heart small ganglia on the filaments of the cardiac nerves, as they ramify on the substance of the heart. These ganglia he described as extremely small; but when examined with the microscope, the characteristic grey corpuscles placed among the filaments of the nerves left no doubt as to their nature.

(To be continued.)

A COURSE OF LECTURES
ON THE
NATURE AND TREATMENT OF THE DISEASES OF THE EAR,
DELIVERED AT
St. Mary's Hospital Medical School.

By JOSEPH TOYNBEE, F.R.S.
Aural Surgeon to St. Mary's Hospital, Lecturer on Aural Surgery at St. Mary's Hospital Medical School, and Consulting Aural Surgeon to the Asylum for the Deaf and Dumb.

(Reported by JAMES HINTON, Esq.)

LECTURE XVI.

EUSTACHIAN TUBE—(*Continued*).

Treatment of Obstruction of the Faucial Orifice of the Eustachian Tube by thickened Mucous Membrane.

Cases of this disease, uncomplicated with any affection of the tympanum, usually yield to the use of general remedies, and of applications to the fauces, without touching the outer ear. The object to be attained is the reduction of the congestion and hypertrophy of the mucous membrane surrounding the orifice of the tube, so that its muscles can again exercise their function of opening it. These cases, there can be no doubt, frequently require considerable patience and perseverance; for in many strumous persons, especially in the young, the tendency to congestion and thickening is very great.

General Remedies.—The most efficient general remedies are—abundant and active exercise in the open air, and warm clothing. Flannel should be worn next to the skin. The throat should not be wrapped up by handkerchiefs, comforters, boas, etc.; these are the sure way of weakening the throat; they keep it warm for a certain time, and when they are removed, the air, which is frequently colder within than outside the house, causes relaxation of the mucous membrane within. When a single tie handkerchief is worn within doors no addition need be worn without; in children, where the throat is entirely unprotected within doors, all that should be allowed without is a small silk handkerchief, loosely tied. I am thus particular in giving these directions, because I have been so frequently convinced of their great importance.

The surface of the body should be daily sponged, or rubbed with a coarse towel that has been dipped in cold water, and then wrung out. As those children who suffer from the affection now being considered have usually a languid circulation, and the nervous energy is below par, the towel bath appears to be the more suitable remedy. The towel should be very coarse, and one part of the body is to be rubbed at a time; the skin, especially of the neck, throat and spine must be made to become red, and to glow. This bath may be used either in the morning or the evening, but once daily is sufficient. If the patient is very delicate, and will not well bear the shock produced by the cold towel, tepid water may be used. In addition to this bath—indeed, to supersede it in cases, especially in youths about 14 to 16, in whom it is not likely to be carried out effectually—the tepid or cold plunge bath may be resorted to. Where it can be practised, sea-bathing should be resorted to; but in all cases where the whole body is immersed, it is advisable to wear an oil-skin cap, to keep the head dry; not because the application of water to the head is objectionable, but because there is so great difficulty in getting the hair perfectly dry, and the slow evaporation from it is often decidedly injurious. Plunging into a fresh-water river in warm weather is not objectionable. In the treatment of the cases under consideration, too much stress cannot be laid upon the necessity of exercise, bracing air, and cold bathing. I have known them overcome the most obstinate cases of obstruction of the faucial orifices of the Eustachian tubes, when all local remedies and medicines had given but slight or only temporary relief. Care should also be taken respecting the diet of the patient; pastry, sweets, fat, etc. should be avoided, vegetables to be given in small quantities only; the principal food to be bread, especially that containing the bran, meat, and light puddings, as rice, sago, etc. Children should not be overworked in their studies, and they should retire early, the rooms in which they live and sleep

should be airy and well ventilated (it is a good plan to have the bed-room door ajar during the whole of the night), and, above all, it is important that the head should be kept above the bedclothes. To overcome the very prevalent habit of breathing through the mouth, whereby the cold air keeps up a constant irritation to the faucial mucous membrane, the patient should be directed to sit down quietly for a certain time daily, and practise the habit of nasal respiration; although it may at first seem difficult, the mucous membrane of the nose soon yields and the air passes freely. Many years since, I pointed out the peculiar erectile tissue of which the nasal mucous membrane is composed, not only in man, but in most mammalia; this tissue renders it a most efficient natural "respirator."

Medicines.—All medicines that give tone to the system may, in succession, be resorted to. Cod-liver oil, iron in its various forms, iodide of iron, iodide of potassium, small doses of the bichloride of mercury, the mineral acids, and vegetable bitters will be found useful.

Local Treatment.—The most efficient local treatment is undoubtedly the nitrate of silver. It may generally be used in a solid form. Messrs. Weiss have made for me a caustic holder, the end of which is capable of being turned at such an angle that the caustic may be passed behind the soft palate and applied to the mucous membrane of the orifice of the tube as well as to that of the fauces. The solid nitrate of silver may be rubbed over the surface of the tonsils should they be enlarged, and of the faucial mucous membrane about once a week. It should produce considerable irritation and a copious flow of mucus. Stimulating gargles are also to be used; the combination of acids and astringents are of service; iced or cold water is often beneficial, and in order to ensure the application of the cold water to the orifices of the tubes, and also to improve the condition of the mucous membrane of the nares, cold water may be drawn up through the nose and passed out by the mouth. When there is much congestion of the faucial mucous membrane a leech or two, or a stimulating liniment or vesicating paper may be applied over the region of the tonsils.

The use of the Eustachian Catheter.—It has been, and indeed it now is, the custom with some Surgeons to pass the Eustachian catheter repeatedly in cases of obstruction of the Eustachian tube. Now what is the effect of this procedure? If the mucous membrane be not much thickened, air is blown into the tympanic cavity, and the power of hearing is at once restored. As soon as the catheter is withdrawn the tube again closes, and its muscles have not the power to open it, the air that has been forced into the tympanic cavity soon disappears, and the deafness returns. The patient again feels relief from the same proceeding with a similar result, and if the mucous membrane is allowed to remain in the same state no permanent relief is obtained. On the contrary, the repeated use of the catheter seems rather to increase than to diminish the congested state of the membrane. Under certain circumstances, however, the Eustachian catheter is of great value; the judicious course respecting it is to use the above-named plans for the purpose of reducing the hypertrophy of the mucous membrane. In the majority of cases they will be found sufficient to cure the disease, but if after pursuing them for ten days or a fortnight no amelioration ensues, the Eustachian catheter may be introduced, and air may be blown through the tube into the tympanum. It is possible that this operation may tend to facilitate a cure by removing mucus from the tube, or by separating the lips of the faucial orifice. The operation, however, should not be repeated for several days, indeed it is not generally required again.

The mode of applying the Eustachian Catheter.—It has been already stated, that the orifice of the Eustachian tube is posterior and external to the posterior aperture of the inferior nasal meatus. The catheter I am in the habit of using is not quite so large as an ordinary crow-quill, and as the outer part of the Eustachian tube is oval, I have suggested that the extremity of the catheter should be of the same shape. The end of the catheter held by the Surgeon should be rather larger than that for introduction into the tube, in order that the end of the *explorer*, or the nozzle of a syringe can be fixed in it. This end, having a ring on one side of it opposite to the concavity of the curved end, is to be taken into the right hand of the Surgeon; the patient being seated in a chair before him, the instrument with the point downwards is to be glided backwards by the side of the *septum nasi*, until the curved end reaches the cavity of the fauces, when it is to be pressed backwards against the mucous membrane of the posterior part of the fauces. It is then to be drawn slightly forwards and then rotated outwards, so that the extremity may turn upwards and catch the orifice of the Eustachian tube, which can be distinctly felt, and the fuller rotation of the instrument is prevented. The catheter is then to be pressed slightly outwards and backwards, and the Surgeon will feel it to be embraced by the tube.

For the purpose of securing the instrument a frontlet bandage, with a pair of forceps attached, has been used; this, however, may be dispensed with in all ordinary cases; instead of it the Surgeon is now to take the catheter in his left hand, and while holding it lightly, so as not to cause pain to the patient, which the use of the frontlet invariably does, he inserts into the dilated end of the catheter the small end of the explorer, or syringe. The *explorer*, which in my hands has wholly superseded the use of the air-press, consists of an elastic tube about 18 inches long, one end of which, for introduction into the month of the Surgeon, is composed of a flat portion of ivory with one or two deep incisions upon it, so as to enable it to be easily held between the incisor teeth; the other end has a small piece of steel tubing attached to it, which fits accurately into the end of the catheter. When the actheter has been properly fixed in the tube, and held there by the left hand of the Surgeon, one end of the explorer is to be placed in his mouth while the other is introduced into the catheter, and held there by the left hand. Thus the Surgeon has the right hand at libery; with this he takes the otoscope, and introduces one end of it into the ear of the patient under examination, and it is held there by the patient; the other end is held by the Surgeon in his own ear, or it may be made sufficiently light to remain there without holding, and his right hand is free. The Medical man then proceeds to blow air gently through the explorer, at the same time that he listens, by means of the otoscope, to ascertain whether it enters the tympanum; and if it does enter he can distinguish the peculiar sound which is produced. When the tympanum is free from mucus ths air is heard to pass in a stream against the inner surface of the membrana tympani; when mucus is present a peculiar gurgling is heard; and if the mucous membrane is thickened a peculiar squeak or other bubbling may be perceived. It is not advisable to blow hard into the ear, but to make a few successive puffs, listening during each to detect what sound may be heard in the tympanum. Sometimes no air enters, the mucous membrane being too thick to allow it to pass; under such circumstances it is not well to attempt to force air into the tympanum; great mischief has frequently resulted from such a proceeding; the mucous membrane has been lacerated, the air has been forced into the submucous tissue, causing extensive emphysema. Still more serious results have occurred: the patient has been killed instantaneously, the cause most probably being the effusion of air through the fenestra rotundæ (its membrane having been lacerated) into the labyrinth, the shock upon the nervous system causing instant death. Inasmuch as the forcible distension of the tympanum while blowing the nose frequently produces giddiness by pressure upon the labyrinth, it need not be a cause of surprise that the effusion of air into the labyrinth should prove fatal.

The Excision of the Tonsils.—On the supposition that the tonsils, when enlarged, pressed against and closed the faucial orifice of the Eustachian tube, the operation for excision or partial excision of the tonsils has long been practised for the relief of deafness. Although, as already shown, the tonsil, however hypertrophied, cannot cause occlusion of the Eustachian tube, still the removal of a portion in cases where it is *much enlarged* is sometimes of service, by diminishing the congestion of the mucous membrane at the orifice of the tube, and it perhaps also may operate beneficially by allowing the muscles of the tube to act more freely. This operation is, however, very rarely required, and the best rule to follow is not to excise a portion of the tonsil, which appears to have important functions independent of the fauces, unless it evidently interferes with the general health of the patient, or unless the obstruction of the Eustachian tube resists the other measures already indicated.

CASES.

Obstruction of the Eustachian tube by thick and red mucous membrane at its faucial orifice.—Master J. M. C., aged 15, was

brought to consult me on December 14, 1852, on account of a very serious diminution of the hearing power in both ears. He was in tolerable health, but pale. About a year previously, after suffering from a bad cold, he became dull of hearing, and since that time he has been able to hear only when spoken to in a loud voice within the distance of a yard or two. Occasionally he has felt a sensation as of something bursting in the ears, and this has been followed by a slight relief, which was, however, but temporary. Upon *examination* I found the mucous membrane of the fauces very thick and red, and both tonsils consideraly enlarged. *The right ear.*—Watch heard only in contact with the ear. The membrana tympani was opaque, of a leaden hue, and more concave externally than natural. Instead of the usual triangular bright spot, two bright spots were perceptible, showing that the membrane was deprived of its ordinary evenness of surface. Upon listening with the *otoscope* while the patient swallowed, the mouth and nose being closed, and while he tried to force air into the tympanum, no sound was heard. *The left ear* was in a similar state to the right; the watch was, however, heard at a distance of two inches from the ear. Feeling assured from the history of the case, the symptoms, the condition of the throat, the appearances of the ear, and the negative results of the otoscope, that the Eustachian tube was closed at the faucial orifice, there being no indication of disease in the tympanum which might lead to the supposition of the tympanic orifice being affected, I did not use the Eustachian catheter, but at once proceeded to apply the solid nitrate of silver to the mucous membrane of the fauces, and to the orifices of the Eustachian tubes. Three grains of sulphate of iron were given daily in combination with ten grains of sulphate of magnesia; slight counter-irritation was kept up over the region of the tonsils. As a remedial measure the catheter was not resorted to, inasmuch as it was evident that the hypertrophy of the mucous membrane had slowly come on, and it was not probable that it could be otherwise than slowly improved. The first effect of the treatment was a slight improvement in the hearing, although the tube remained impervious. This improvement probably depended upon a diminution of the congestion in the mucous membrane of the tympanum. At the end of January the hearing-power of the right ear had greatly improved, and in the middle of February the air passed freely through the Eustachian tubes during the act of deglutition, and the patient heard quite well.

Obstruction at the faucial orifice for two months.—W. W., Esq., aged 52, being strong and in good health, consulted me on July 26th, 1853. He stated that two months previously, after a bad cold, he became slowly deaf in both ears, so as to require persons to speak loud to him within the distance of a yard. On the 24th, after yawning, he suddenly experienced a crack in the left ear, and he suddenly heard well. This improvement lasted for a day, after which the deafness slowly returned. He has had three similar attacks during the last ten years, but, after a month's duration, the hearing has returned after a cracking sound in the ears. At times while throwing the head back he has found the hearing power in the right ear much improved. Upon examination the mucous membrane of the fauces was red and hypertrophied. *Right ear.*—Hearing distance three inches. The meatus was dry, the membrana tympani more concave than natural; surface uneven; and instead of the single triangular bright spot, there were two smaller spots. *Eustachian tube.*—The otoscope did not detect any air entering the tympanic cavity during the process of deglutition, or upon an attempt at a forcible expiration with closed nostrils. *Left ear.*—Watch heard only when in contact with the ear. The membrana tympani was in the same state as that of the right ear; the long process of the meus could be seen through it. The Eustachian tube was impervious.

By the use of stimulating gargles, and a liniment over the ears and throat, the patient entirely recovered in the course of a fortnight.

Obstruction of the faucial orifice; catarrh from meatus; tonsils very large; cure without excision.—Master B., aged 16, was brought to consult me in August, 1850. The general health was not very good. He was subject to glandular enlargements.

History.—The right ear has always been slightly dull; for two or three years it has been worse, and lately the left ear has also become so dull that he requires to be spoken to distinctly within the distance of a yard. Has had several attacks of ear-ache, after which, and also after a cold, the deafness is increased. Has had discharge from each ear on several occasions, and he complains of a singing in them. When asleep he makes a loud snoring sound, and he always breathes through the nose. At times has had a cracking sound in the ears, which has been followed by a temporary improvement. Upon *examination* the tonsils were found to be so much enlarged as nearly to touch in the median line; the mucous membrane of the fauces and that of the nose was much thicker than natural. *Right ear.*—Hearing distance half an inch; membrana tympani concave; bright spot somewhat dull; Eustachian tube impervious. *Left ear.*—Hearing distance two inches; the bright spot of the membrana tympani subdivided. Eustachian tube obstructed.

As the tonsils in this case were so much larger than natural, and as they apparently interfered with the respiration of the patient, and perhaps with his health, it was thought that the removal of one or both would be attended with benefit. The patient's friends, however, so strongly objected to the operation that it was not performed. The *treatment* consisted in the application of the solid nitrate of silver to the fauces, in the use of an astringent gargle of counter-irritants over the ears and the throat, in the administration of tonic medicines, and in careful diet and abundant exercise in the open air. On August 21st, a crack took place in the left ear, and he heard perfectly for a short time. After this date a succession of cracks was heard in each ear, and at last the hearing power entirely returned, and it remained perfect except during a cold, the effects of which, however, speedily disappeared.

Obstruction from thick mucous membrane of the fauces; polypus in the meatus externus; removal by operation; cure.—H.W., Esq., aged 19, was sent to me by Mr. White Cooper in February, 1854, on account of a considerable diminution of the power of hearing, and of a discharge from the right ear. His health was not very good; he was subject to enlarged aureal glands. The *history* of the case was that about two years since he found himself becoming gradually dull of hearing; after this dulness had remained some months, accompanied by a feeling of fulness in the ears, a discharge took place from the right ear, the quantity of which has lately considerably increased. Upon *examination* the mucous membrane of the fauces was observed to be red and thick. *Right ear.*—The watch heard only when in contact; a raspberry polypus, the size of a small pea, was seen to fill the meatus, close to the membrana tympani. *Left ear.*—Hearing distance six inches; membrana tympani opaque, and calcareous in parts. Each Eustachian tube was impervious. The *treatment* consisted in the removal of the polypus, which was extracted by means of the lever-ring forceps. The membrana tympani was then observed to be white. Astringent and acid gargles were used; slight counter-irritation was kept up over the ears and the region of the fauces; tonics were administered, and sponging with cold water daily was enjoined. In the course of a week a crack took place in the right ear, which was at once followed by great improvement to the hearing; this was succeeded by a crack in the left ear, and a perfect restoration. The discharge wholly disappeared. Upon seeing this patient several months afterwards I found his hearing perfect, and there had been no return of the discharge.

I have said that the use of the Eustachian catheter is rarely required because the state of the mucous membrane generally so much improves by means of other remedies. In the following case, however, where there was an additional cause of impediment besides the thickened mucous membrane, the catheter was used with advantage.

Impervious condition of the tube from hypertrophy of the mucous membrane at the faucial orifice; fissure of the palate; catheter used with advantage.—Dr. P., a Medical man, aged 43, consulted me in 1853, on account of deafness. *History.*—Several years previously he had a disease of the palate which terminated in the loss of a considerable portion of the palatal processes of the superior maxillary and palate bones; a loose fissure was thus produced. During the late two or three years he has suffered from attacks of deafness during a cold; these after remaining for some weeks have disappeared. Upon *examination* the mucous membrane of the fauces was found to be red, and much thicker than natural; towards the posterior part of the palate a large fissure, through the trumpet-shaped extremity of the Eustachian tube, was visible:

the mucous membrane was much swollen. Each membrana tympani was of a leaden hue, and very concave; there was an appearance of redness beyond the membrana tympani as if the mucous membrane was congested. The patient required speaking to distinctly within the distance of a yard. The Eustachian tubes were impervious. *Treatment.*—A solution of nitrate of silver (ʒii. ad ʒi.) was applied to the mucous membrane of the fauces, and to the orifices of the tubes; an astringent gargle was ordered, and gentle counter-irritation over the throat. This treatment produced a slight improvement, but as the deafness soon returned, as the patient was especially anxious to hear, and as it appeared probable that the muscles of the tube were partially disabled from performing their function, I passed the Eustachian catheter, and by means of the *explorer*, I blew air into the tympanic cavities. The good effect was instantaneous, and the patient heard well. This improvement, however, lasted but for about twelve hours, and the deafness gradually returned. At the desire of the patient I passed the catheter on several occasions, while other treatment was pursued; after each operation the hearing was improved for about the same space of time, and ultimately the condition of the mucous membrane was so much improved as to allow the muscles to open the tubes.

In some cases after the Eustachian tube has been obstructed a long time, the patient may almost wholly lose the power of hearing. These cases, as will be seen by the following instances, are by no means to be dispaired of.

Obstruction by thickened Mucous Membrane at the faucial orifice; duration of many years; great and prolonged hardness of hearing; cure.—Miss J. A. O., aged 12, was brought to me from Manchester on the 16th April, 1853; she was strong, but somewhat pale. The *history* of the deafness was that during several years she had been dull of hearing during a cold, but after the cold disappeared the power of hearing would partially return, so that she could hear without much difficulty. For nine months the deafness has been so much worse that she cannot hear, unless spoken to in a loud voice into the left ear, the right being useless. Upon *examination*, the mucous membrane of the fauces was found to be red, thick, and spongy; the tonsils were not larger than natural. The mucous membrane of the nose was very thick and red; respiration was usually carried on by means of the mouth. *Right ear.*—Watch heard on pressure, but indistinctly; membrana tympani concave, surface uneven, three irregular-shaped bright spots were seen on its surface. Eustachian tube impervious. *Left ear.*—Watch heard when pressed upon the ear. Membrana tympani and Eustachian tube in the same state as the opposite ear. *Treatment.*—The solid nitrate of silver was directed to be applied to the mucous membrane of the fauces once a week, counter-irritation over the ears, and a leech or two at times over the region of the fauces, the 30th of a grain of the bichloride of mercury twice daily, a warm bath twice a week; now and then, also, an emetic was administered. She returned to Manchester, and on the 28th of May her father wrote to me, saying that she was "so much better that she can keep up a conversation across the table." The child had a relapse in the following January, but a repetition of the treatment again restored her to perfect hearing.

It is not, however, only in long-standing cases of obstruction of the Eustachian tube that the deafness is very considerable; in weak persons almost total deafness may come on in a few hours. A well-marked case has recently occurred to me.

Sudden obstruction of each Eustachian tube, from congestion and thickening of the mucous membrane of the fauces, producing total deafness in a few hours; cure.—Dr. B., on the 24th of January, 1855, called to ask me to see his wife, of whom he gave the following *history*. For several months she has been much out of health, and confined to her room, but has never suffered from any deafness or disease of the ear. On the night of the 20th inst. she woke, complaining of a loud singing in the ears, and when spoken to it was found that she was so deaf as not to be able to comprehend what was said, although spoken to very loud. If possible the deafness increased, so that, on the 22nd, *no sounds* were heard, and all communication was obliged to be in writing. Upon *examination* on the 24th, I found that the deafness was complete, each membrana tympani was very concave and dull, the mucous membrane of the fauces was very red and thick, the tonsils and uvula much swollen. Each Eustachian tube was impervious. Upon inquiry I found that, accidentally, part of the window had been left open during the night. The *treatment* recommended was the application of the solid nitrate of silver to the fauces, and the orifices of the Eustachian tubes. This was done freely about eleven o'clock on the 26th. Dr. B. returned home two hours afterwards, and found the hearing so improved that he carried on a conversation with his wife in a loud voice.

I might add to these a large number of cases, in which the treatment was quite successful. I will merely give the leading particulars of another.

L. H., Esq. aged 28, consulted me on June 25, 1853. Has suffered for several months from a sore throat, consequent upon an attack of secondary syphilis; for two months has complained of deafness in both ears, so that he cannot hear a voice, except when it is loud. This deafness is accompanied by constant singing, which is increased when the head is on the pillow. The deafness varies much; on one occasion, after gargling the throat, heard much better with the right ear for twelve hours. On *examination* of the *right ear*, the hearing distance was found to be half an inch, the membrana tympani was opaque, and of a leaden hue; the surface shone, but the bright spot was nearer the circumference than natural; Eustachian tube impervious. The *left ear* was in the same condition as the right. The *treatment* pursued was the use of the nitrate of silver to the fauces, and the administration of steel wine. On July 2nd he told me that three or four days previously he heard quite well in the morning; the improvement lasted for two days, since which he has been gradually getting deaf again. By perseverance in the treatment for a month he perfectly recovered, and has remained well ever since.

(b). *Obstruction of the Eustachian Tube at its faucial orifice from relaxed mucous membranes of the fauces.*—This affection is far from being so frequently met with as obstruction arising from *thickened* mucous membrane. In many symptoms the two affections are very similar, but they present certain decided differences. Obstruction from relaxed mucous membrane less often occurs in children or in patients subject to glandular enlargements than in persons in whom the mucous membrane of the fauces is relaxed without being thickened. The physical cause of the obstruction appears to be this relaxed condition of the mucous membrane involving the faucial orifice of the tube, so that its muscles are unable to separate the lips sufficiently to admit the air. The predisposing cause is generally some debilitating influence, as overwork, keeping late hours, indigestion, etc.; the exciting cause is often a cold. There is usually no history of any previous affection of the ears, the deafness coming on slowly, and gradually increasing, until the patient is unable to hear ordinary conversation, but requires to be spoken to in a loud voice. Sometimes the patient improves for a short time, and the deafness again recurs. Frequently the hearing is improved when the head is placed in the recumbent position, or when the face is turned so as to look backwards. There is often a feeling of weight in the ears, with a singing sound. At times there is a feeling of confusion in the head. Upon *examination* the patient generally looks pale and wants tone, the pulse is weak, the mucous membrane of the fauces is either relaxed and red, the blood-vessels being large, and presenting long streaks, the uvula hanging down so as to touch the dorsum of the tongue, or it is of a much paler colour than natural, from being deprived of its due supply of blood. The membrana tympani is much more concave than natural, frequently of a leaden hue, its surface being glassy. Not unfrequently the long process of the incus is seen through it. Upon exploration with the otoscope the Eustachian tube is found to be impervious. The *treatment* differs somewhat from that of cases of obstruction from thick mucous membrane. Instead of nitrate of silver, stimulating gargles are to be used; one composed of whisky is often very serviceable. Tonic medicines and stimulants are to be administered; generous diet, rest from work, country air and abundant out of door exercise should also be prescribed. Similar reasons to those which induced me not usually to use the Eustachian catheter in cases of obstruction from thick mucous membrane have prevented my resorting to it in the cases under consideration. The use of the catheter, of course, could not diminish the cause of obstruction, or facilitate the progress of the treatment; and unless the patient from some particular circumstance be very desirous to hear well during a few hours, the introduction of this instrument is not to be recommended. A cure is always to be effected without it.

(To be continued.)

ORIGINAL COMMUNICATIONS.

WOUND OF THE POPLITEAL ARTERY.

By J. C. WORDSWORTH, Esq.

Assistant-Surgeon to the London Hospital, and to the Royal London Ophthalmic Hospital.

Richard Burness, aged 29, admitted into the London Hospital on the 16th of July, 1857, under the care of Mr. Luke, on account of profuse hæmorrhage from a punctured wound of the left thigh. While engaged in ripping open bales of hides in the Leadenhall Market, his pocket-knife accidentally plunged into the thigh to a considerable depth. Much blood immediately escaped, and a couple of handkerchiefs were tightly applied round the limb, and he was removed to the Hospital in a very depressed and alarmed state.

Mr. Owen, the House-Surgeon, finding considerable bleeding continuing, at once removed the applications, and found a wound of about an inch and a half in length, and three in depth, on the front and inner aspect of the thigh, within a few inches of the knee-joint, passing obliquely downwards and inwards, in the direction of the main artery. The wound was dilated, and the blood appeared, from its quantity and mode of escape, to come from the popliteal artery. Consequently he applied pressure to the artery above, and sent for Mr. Luke. In his absence I attended.

The man was so much depressed as to preclude the use of chloroform. The wound was then carefully examined, and admitted the whole length of the fore-finger, without meeting with the artery. Some pulsation could be distinguished in the posterior tibial, behind the malleolus, and the temperature of the leg below was little, if any, lower than that of the other. During the examination a profuse flow of blood occurred, which at once indicated its source. The wound was therefore dilated upwards and downwards, to the extent of about five inches, and after some careful dissection, an oblique puncture of the popliteal artery, occupying about a third of its calibre, was discovered. Ligatures were carried under by means of an aneurism-needle, and firmly secured above and below the wound. The bleeding was arrested, but on removing pressure from the wound, some dark venous blood welled up, apparently from some tributary of the vein, for which graduated compresses were introduced to the bottom of the wound, and the whole leg lightly bandaged from the foot, and placed on an inclined plane. The operation was necessarily tedious, and the patient probably lost, from the time of the accident, about two pints of blood. Though of delicate and spare appearance, he had always had good health.

17th.—The temperature of the limb somewhat above the standard. No hæmorrhage. Pulse 80.

18th.—The wound was dressed; no bleeding occurred; dressing of wet lint; limb warm. The dresser, Mr. Lloyd, perceived pulsation at the ankle in the posterior tibial artery.

19th.—Going on well; but complains of having taken cold in neck from an open window.

20th.—A smart attack of acute rheumatism, attacking almost all the joints. To take citrate of potash.

21st.—Still suffering much from rheumatism; during the night he accidentally kicked the wound, and caused a little bleeding, which was controlled by local pressure.

23rd, at 5 30 a.m.—Lost some blood, which though rather copious, was easily restrained by pressure. At mid-day a consultation was held, in which the patient had the advantage of Mr. Travers' opinion, as he happened to visit the Hospital that day. The wound was gradually improving; the hæmorrhage had ceased since early morning, and as any interference must involve a serious operation, it was decided to leave it under strict surveillance.

25th.—Hæmorrhage occurred again, but soon restrained by pressure. The force of the circulation was diminished by a weight (4 lbs.,) pressing on the groin. Pulsation distinct in posterior tibial.

27th, 11th day.—Lower ligature found loose in wound. The knot secure.

28th.—Profuse bleeding occurred at 11 a.m., which so depressed the patient that he could not bear the shock of an operation. Graduated compresses were introduced into the wound, and pressure continuously maintained by a nurse, till the patient could rally, under the repeated use of stimulants; but he sank during the night, and died at 4 a.m. 29th.

On examining the wound after death, the proximal ligature was found quite severed, and loose in the wound. Both ends of the artery were quite patent. The ligatures had cleanly divided the coats, the upper close (one-third of an inch,) to the large anastomatic branch of the femoral, which was quite patent; the lower near to some large muscular branches, which were unplugged. The coats of the artery were smoothly cut, and the epithelium quite glossy to the margin of the section, and there appeared no attempt to produce a clot in either end.

Few cases can more interest the Surgeon than those of wounded arteries. None demand more decided treatment, nor require greater judgment and skill in their treatment. No time may be lost in diagnosis: treatment must be prompt to be effectual; hesitation is fatal as error, and here error is peculiarly fatal. Having acted once, promptly, decidedly, and advisedly, the issue of the case mainly rests on that one opportunity; whatever is done afterwards can but ill supply the deficiency of the first treatment. On no subject is modern Surgery more explicit, or more exact. When an artery is wounded, nothing short of the impossible is allowed to justify our swerving from the rule of tying it above and below the wound; for any other course is so beset with fallacies, that it can rarely lead to success, and must be painfully and doubtfully travelled. Great, therefore, must be the disappointment when, on the beaten track of science, we fail to attain our goal. The painful case above detailed affords much matter for reflection, and forcibly illustrates the influence of maxim on the one hand, and on the other, demonstrates the propriety of deviating from the sayings of the wise, and of making laws bend to cases, instead of cases to laws.

No more baneful practice can be pursued than that of publishing only *successful* cases. It has been said by a great and honest man, "We learn far more by our mistakes than by our successes." The latter please us, and we forget them; the former cause us to reflect on each step of our proceedings, and scrutinise the causes of failure—to think what we have done, and what we ought to have done. Let us see, then, if the dictates of science were adopted in the above case; secondly, if they are, whence the failure; and, lastly, in a similar case, how should we act differently in future? I suppose that few will controvert the propriety of at once enlarging the wound, and (difficult as the case was) seeking to tie the wounded artery at the wounded spot, rather than amputate or deligate the common femoral, for the bleeding might have come from the profunda,—the risk of mortification would have been imminent—almost certain. The alternative of amputation was a *pis aller*. The only objections, then, to the plan followed, appeared to be the great difficulty and necessary amount of injury, and further loss of blood. The locality seemed favourable, as regards branches of the artery,—the anastomatic above and articular below. Hence we assume the correctness of the first procedure.

2. Whence the failure? I own to much diffidence in answering this question. For in the first place, there can be no doubt that both ligatures did their work; both came away as firm knots, not allowing a pointed probe to be inserted; but both came away *unusually* soon—by the eleventh day. Each inclosed a small slough of the cellular coat. Then the bleeding first came on by a blow with the man's leg on the seventh day—perhaps by detaching one of the ligatures. Again, on the third day he was attacked with acute rheumatism, which at one time threatened the heart; so he was fed sparingly. This, with the change of the composition of the blood, and the loss of rest, were clearly prejudicial to organization of a clot, and perhaps conducive to ulceration. It was also found after death that the anastomatic arose only one-third of an inch from the ligature; and, though the main trunk itself was much contracted, the branch admitted a crow-quill; hence a considerable disturbing current would pass through it. The extremity of the artery was cleanly cut; and if any clot had formed, no attempt at organization had occurred between it and the artery, and its mouth was fully patent. There was no reason to think the man was of a hæmorrhagic diathesis; but his power of establishing a collateral circulation was remarkable; for on the third day a current could be clearly felt in the posterior tibial artery, and the temperature of the leg was very quickly restored after the deligation. The failure, then, seemed to depend on the want of plastic force

to repair the injured artery, diminished, probably, by disease, and disturbed by the accidental blow.

3. What advantage may be obtained from this case to influence future practice? It will at once occur that another operation might have saved the poor fellow's life. To this I at once assent; and before I say another word let me not be thought to be apologizing for myself, instead of showing the embarrassing circumstances with which the case was invested, and the desperate alternatives involved. In the first place, it is an axiom that no artery should be disturbed for deligation unless it bleeds, especially when it is difficult of access, and requires a serious operation. Secondly, in this case it was very problematical where the blood came from; there were many reasons to think it was not from the upper orifice. Thirdly, as it had been tied at first deeply behind the knee-joint, it would be almost impossible to secure it again without cutting afresh from the surface, in the popliteal space, when it might be found to come from above; then, if it could be diagnosed to come from the femoral, there were two courses open—amputation, or ligature of the femoral. The former would certainly have met all difficulties, and if the patient could have borne it, might have been performed. On the other hand, suppose we had decided to tie the common or the superficial femoral, it might have stopped the bleeding, or it might have failed; and lastly, in all probability, mortification would have ensued in the leg, were it successful or not in restraining the hæmorrhage. From the above considerations it appeared to us that we gave the patient the best chance of recovery by refraining from operative proceedings, and relying on pressure, local and distant; and, although the termination of the case was so sad, I regret that I cannot see, on retrospect, a ray of light to brighten our hopes in a similar difficulty.

41, Finsbury-square.

OBSERVATIONS ON THE MEDICAL HISTORY OF THE EARLY KINGS OF ENGLAND.

By G. CHAPLIN CHILD, M.D.

(Concluded from page 139.)

HENRY IV. 1399—1413.

There can be no doubt that this king died from epilepsy in the 46th year of his age. Hume, generally so short and unsatisfactory in noticing the deaths of our kings, gives a just summary in these words:—"His health declined for some months before his death; he was subject to fits, which bereaved him for the time of his senses; and, though he was yet in the flower of his age, his end was visibly approaching." Henry, pricked by remorse for his cruelty towards Richard II., or driven by his restless, enterprising nature, had resolved upon a new crusade to the Holy Land, at a time when such expeditions had been out of fashion for more than a hundred years. Nevertheless, he was busy with his preparations in the year 1413, when, in the words of Holinshed, "we find he was taken ill with his last illness, as he was making his prayer at St. Edward's shrine—there, as it were, to take his leave, and so proceed on his journey. He was so suddenly and grievously taken, that such as were about him feared he would have died presently, wherefore, to relieve him, if it were possible, they bare him into a chamber which was next at hand at Westminster (the Jerusalem Chamber), where they laid him on a pallet before the fire, and used all remedies to recover him. At length he recovered his speech, and spoke."

"During this his last illness, he caused his crown to be placed on his pillow at his bedside, and suddenly his pangs so sore troubled him that he lay as though all his vital spirits had from him departed. Such as were with him, thinking that verily he had been departed, covered his face with a linen cloth." Then follows the story of the prince (afterwards Henry V.) taking away the crown, the subsequent rallying of the king, and his mild rebuke to his over-eager son. This story was never recorded upon satisfactory authority, and is now generally discredited. The king, however, did at length rally, and spoke; and "so he languished till his appointed hour."

Henry IV., towards the end of his reign, appears also to have suffered severely from a "loathsome" eruption on the face. Religious persons remarked that it broke out soon after his cruel treatment of a distinguished dignitary of the church. William Scroop, Archbishop of York and Lord Treasurer of England, who, having "written an invective against King Henry, lost his head." Many even believed that the king died of leprosy, an opinion which Hall emphatically contradicts; "the cause was not a leprosy, as foolish friars have written, but an apoplexy." Baker, in his list of learned men who flourished in this reign, does not mention any "Physicians." Holinshed, in a very long list, has only one, "William Holme, a grey friar, and a good Physician for curing diseases of the body, whatsoever his physic was for the soul. He lived until Henry V. his days, and deceased about the fourth year of his reign."

HENRY V. 1413—1422.

It is recorded of this king that he was tall, thin, and muscular, and so swift of foot that he, "with two of his lords, without bow or other engine, would take a wild buck or doe in a large park." Likewise, "in casting of great iron barres and heavy stones, he excelled all men." Thus it may be said that the old Scottish game of "throwing the hammer" and "putting the stone" was a favourite pastime with Henry V.

So many different causes of the death of this king are assigned, that it is difficult or impossible to fix upon the true one. Henry died at the early age of 34, at Bois de Vincennes. Speed gives this account:—"But great Henry's stout mind was crossed by his crazy body, his health being so impaired with a burning fever and flux that he was dissuaded from the march. He took leave of King Charles at Senlis, and the two queens, and in his horse-litter marched, though weak, after them; but at Melun, finding his sickness to increase, and himself, who erst could endure all things, now unable to endure travel, he returned to Bois de Vincennes." After some time, "he demanded of his Physicians, how long, in their judgment, he might live? whereunto, when one of them answered, 'Sir, think on your soul, for your time is not above two hours,' he made his confession," etc.

Peter Basset, chamberlain to the king, who wrote a history of Henry V., said to be still extant in MS., is thus quoted by Holinshed:—"Peter Basset, a chief man in his chamber, affirmed that he died of a pleurisy, though the Scotch and French set it down to be of St. Feacre's, (or St. Piacre's,) disease, that they say was a palsy with a cramp, which Enguerrant reports to be St. Anthony's fire, but neither of them truly. Out of this involved, obscure, and contradictory account, no definite opinion can be formed. In "Anglorum Proclia," Holinshed goes on to state, the cause assigned "was a sharp fever, which happening unto him (wearied with the broils of war), in a very unseasonable time of the year, namely the dog days, tormented him the sorer, and grew to be not only dangerous, but also desperate, for it left him not till life was extinguished."

Hume says Henry V. "was seized with a fistula, a malady which the Surgeons at that time had not skill enough to cure." In a case where the rumoured causes of death were so numerous, it were, of course, to be expected that many would ascribe it to poison. Baker remarks:—"Some say he was poisoned, which Polydore Virgil saith was much suspected."

It may be observed, then, that the chief causes of death which are assigned with fair authority are fever, dysentery, and fistula. There are some circumstances tending to show that the fever was not essential, but symptomatic: that it was moderate, and not in itself the cause of death. He retained his senses during his illness, and up to the last. He was sensible of the approach of death, and was able to assemble around him his chief relations and friends. With them he entered anxiously and minutely into all the arrangements necessary for the future management of the kingdom, about to pass into the hands of his infant son. Holinshed tells us he "said the seven psalms, and received the sacrament; and in saying the psalm of the passion he ended his days."

All this does not accord well with the idea of a fatal fever. But his complaint was a painful one. "The Dukes of Bedford and Gloucester, etc. repairing to Bois de Vincennes, find him in so great an agony and exceeding pain" that they began to bewail "his painfull pain and grievous malady," borne

"without outward show of suffering." The king "encouraged them to be joyous, and conversed with them at great length."

On the whole, then, it seems most probable that Henry V. died of dysentery, which attacked him at a time when he was suffering from fistula in ano, and when his health was further impaired by great political anxieties.

Neither Holinshed nor Baker gives the names of any distinguished Physicians among the distinguished men who flourished during this reign. But about the year 1415 Henry V. engaged Master Nicholas Colmet, a Physician, to serve with him one year in France. In the same year the king engaged Thomas de Morestede, Surgeon, who was to bring with him twelve other surgeons.

HENRY VI. 1422—1461.

In the year 1471, ten years after he had been deposed from his throne, Henry VI. was found dead in his prison in the Tower. The general belief is that he was murdered, as Baker says, "by the bloody hand of Richard, Duke of Glo'ster, afterwards king,"—a version which has been adopted by Shakspeare. Shakspeare also notices another circumstance connected with the burial of the king, which at the time was considered not without meaning. "The day after his death he was brought to St. Paul's church in an open coffin, barefaced, where he bled: thence to the Blackfriars, where he also bled: thence to Chertsey Abbey, without priest or clerk, torch or taper, saying or singing." Finally, he was honourably interred by Richard III., whose conscience had become uneasy on hearing of the miracles wrought by the neglected bones of his victim.

Neither Baker nor Holinshed mentions the names of any Physicians who flourished during this stormy reign. Nicholas Hostresham, or, it may be, of Horsham, flourished about 1443, and was in request not only for his Medical skill, but also for his conversational attractions.

Henry VI. was the first of our kings interred in St. George's Chapel at Windsor. He had restored it from a state of dilapidation. Windsor henceforth divides with Westminster Abbey the honour of being the last resting-place of our kings.

EDWARD IV. 1461—1483.

The Medical history of the last illness of none of our kings is more uncertain than that of Edward IV. He died in his 42nd year. Hume writes, that in preparing war against Louis of France, "he was seized with a distemper of which he expired." Lingard attributes his death to "a slight ailment treated with neglect, which suddenly exhibited the most dangerous symptoms." Baker reports that "some say it was a catarrh, some a fever." In the Continuation of Ingulph it is mentioned that "the king, neither worn out with old age, nor yet seized with any known kind of malady, the cure of which would not have appeared easy in the case of a person of more humble birth, took to his bed, about the feast of Easter, and on the 9th of April died." Speed observes, "whether with grief, anger, or melancholy, he fell into a dangerous and deadly sickness, some say of a superfluous surfeit, whereunto he was much given. Comines says of "a catarrh, which weak state turned his mind another way." Hall writes as follows:—The king "suddenly fell sick, and was with a grievous malady taken; yes, so grievously taken that his vital spirits began to fail and to wax feeble, which debility when he perceived, he called together all his nobles who were about London at that time, and addressed them at great length, until he at last said, "I am so slepie, I must make an end." He held many such discourses, "as the pangs and fits of his illness would permit him." Subsequently "his malady suddenly increased, and grew to so painful an extremity that short death was sooner of him required than long life desired, wishing rather departing out of the world than to abide the painful smart of his dolorous pangs. Whereupon Atropos having compassion, broke the thread of his natural life."

Baker makes the following observation on the long death-bed discourses to which allusion has just been made. "At the very point of death, Sir Thomas More makes him to make a speech to his lords, which I might think to be the speech of a sick man, if it were not so sound, and of a weak man if it were not so long. But it seems Sir Thomas More delivers rather what was fit for him to say than what he said." I suspect that this criticism applies to more than one death-bed oration of our early kings.

Edward IV. was buried in the "New Chapel" at Windsor. "In 1789, the workmen employed in repairing the chapel perceived a small aperture in the vault where Edward IV. was interred. On being opened, the skeleton of that monarch was found inclosed in a leaden and wooden coffin; the head was inclined to the north side, without any appearance of cere-cloth or wrapper, rings, or other insignia. The skeleton was found immersed in a glutinous fluid, of a strong saline taste." Murray, Environs of London.

The only "great Physicians" mentioned by Baker as flourishing during this reign are Servisanus, Savanarola, and Barzizius.

When Edward undertook an expedition into France in the 14th year of his reign, the Medical men who accompanied him were arranged thus:—1. King's Physicians. 2. King's Physicians and Surgeons.

Passing over Edward V. and Richard III., both of whom died by violence, we come to

HENRY VII. 1485—1509.

Lingard tells us that "the king had for years been visited with regular fits of the gout. His strength visibly wasted away; and every spring the most serious apprehensions were entertained for his life."

In 1500, Henry went over to Calais to avoid the plague, and returned safely after a few months' absence.

Hume briefly says, "He died of a consumption," in the 52nd year of his age. Of the truth of this opinion there can be little doubt. Baker thus chronicles the event:—"In the twenty-second year of his reign he began to be troubled with the gout, but a defluxion also taking place into his breast wasted his lungs, so that thrice a year, especially in the spring, he had great fits and labour of the ptisick, which brought him to his end." Speed observes, "Henry VII. had the favour from Heaven to lie sick of a consuming disease, which wasted him by such insensible degrees, which gave him the use of his whole self, as it were, till the last gasp."

Henry appears to have been seriously ill for nearly two years before his death, although, with the sanguine feelings often observed in consumptive patients, he entertained during that time more than one matrimonial project on his own account. As long as the event seemed to him doubtful, remorse struggled in vain against his habitual rapacity; but as his disease "wasted him," and "his preachers exhorted him from the pulpit to prepare for death," he became at length sensible of its approach, and "did many good deeds."

It will be noticed that in the "Lists of Famous Men," given by Holinshed, Baker, and other historians, the names of "excellent Physicians" flourishing in England in the fifteenth century almost disappear. Sprengel does not mention a single English Physician of eminence, and only a very few either of France or Germany; most are Italians. Of the few English Physicians mentioned by Aiken, Marfelde lived quite at the beginning of the century, and left no great reputation behind him; Nicholas Hostresham is handed down to us as remarkable for his conversational talents, and for a few Medical writings which did not long survive; John Phreas was distinguished chiefly for his scholarship, while the reputation of Linacre belongs rather to the following century. Moreover, although the estimation in which Linacre was held and the testimony of distinguished contemporaries sufficiently prove that he was one of the best practical Physicians of his time, yet he is known to us more especially by his classical attainments, and by the share he had in founding the Royal College of Physicians of London.

It has been noticed that about the period when this essay begins—in the time of William the Conqueror—practice was almost entirely in the hands of ecclesiastics. They monopolized the little then known of literature, science, and high art. The Medical man, combining in himself the offices both of priest and physician, was summoned, like Master Nicholas de Ferneham to Bishop Grosthead, "to administer both religious consolation and Medical advice." Not only were they the Physicians in the case, but they were likewise the historians of it; none but the more accomplished among the "Clerks" could write. They did their task faithfully and well; but as a true knowledge of disease, which alone could have given method and completeness to their account, and have made it satisfactory to us, did not then exist, they are rather to be praised

for what they accomplished than censured for what was unavoidably omitted.

This intimate association between Divinity and Medicine subsisted during the whole period we have been considering, and yet with a difference At first the Physician was secondary to the priest; medical practice was a profitable accomplishment, exercised without prejudice to his higher office. Ultimately we hear less of the clerical and more of the medical qualification. Everybody who has read an account of the death of the Conqueror knows that his Physicians were a bishop and an abbot; there are comparatively few who know that, of the Physicians of Henry VIII., at the time of the founding of the College, John Chambre was dean of the royal chapel at Westminster, or that Linacre had held a series of preferments in the Church. Throughout the whole of the period, it is probable that sinecures in the Church were occasionally bestowed on medical men by the great and powerful, by way of recompense for their professional services. At other times, no doubt, Church preferment was sought after by medical men from motives of piety, for the sake of the social position attached to it, or with the view of having a calm retreat to fall back upon in their old age, when tired of the anxieties of practice. It was, a common occurrence also in France for Physicians advanced in life to retire into "chapitres," or chapter-houses, where, without the rigour of strict monastic rule, they obtained a peaceful retreat with religious society. He who has read Lamartine's "Confessions" will not have forgotten the pleasing glimpse he gives of the interior of one of these abodes. Up to 1452, all Physicians in France were obliged by law to qualify as clerks, and consequently were not allowed to marry; hence some retreat of this kind was the more desirable for them in their declining years.

Nevertheless, this union of professions was by no means always approved of by the higher authorities in the Church. So early as in 1139 (temp. Stephen) the General Council of the Lateran alluded to monks practising as an intolerable abuse, and strictly interdicted them from so doing. "The author of The Antiquities of Paris," says Freind, "reckons it one of the devil's stratagems to supplant religion by drawing them (the monks) out of the cloisters, under a specious pretence of doing good to the sick." The Council of Tours, in 1163, made the rule more stringent, and it was again renewed in 1179 and 1216. A kind of compromise seems to have been made on different occasions. Thus at first the restriction was applied only to the higher dignitaries, as Prelates and Archdeacons; and the practice of Surgery was interdicted earlier and more rigorously than the practice of Physic. Of course these papal restrictions were heartily indorsed by all lay practitioners, who viewed clerical practice as an encroachment on their own domain. Each party had its champions, and angry pamphlets issued—not from the press, but—from the desk. Thus Sprengel relates that when the Physician of Philip Augustus, who had been regularly instructed at the school of Salernum, wrote against the interference of priests in medical matters, an ecclesiastic of note, Physician to the Archbishop of Canterbury, entered the lists against him, and tried to put him down. So likewise Gilbertus Anglicus is reported to have distinguished himself not more by his writings than by the hard blows he dealt to his monkish rivals, whose practice he denounced as superstitious and absurd. Thus both orders of practitioners fought for their privileges with something of the same jealousy with which in our day Physicians and Surgeons defend the frontiers of their respective departments.

Nevertheless, in spite of "councils" and lay opposition, the clergy, as we have seen, retained their hold of practice, more or less firmly, throughout the whole period embraced in this essay. But it must also be admitted that, if the emoluments of practice tempted the priests, church sinecures were not without their attractions for Physicians. There was, in fact, and had long been, a confounding together of the two professions, and the "encroachment" was quite as much on the side of the Physician as of the clergy. Thus in the middle of the fifteenth century, Phreas, settling first as minister of St. Mary's, Bristol, subsequently amassed a fortune, as M.D., in Italy, and ended by being named Bishop of Bath and Wells, although he died before consecration. So likewise John Chambre was a dean, and held other preferment besides; and Linacre himself, in the course of the last fifteen years of his life, held two rectories and three prebends, with other preferments; yet both were the King's Physicians notwithstanding.

Such was the way in which the Profession was followed, at the beginning of the 16th century, in what somebody has called its "higher walks;" but in regard to the qualifications of Medical men generally, the practice of the healing art may be said to have then reached its period of greatest ignorance and disrepute. Freind and others attribute this result to the little honour paid to the Profession at courts, or by the great, and to the interference of priests. But allowing that the restriction of the clergy to their own department worked well ultimately for both professions, its immediate tendency undoubtedly was to lower the attainments of Medical men, and to scatter practice among the most ignorant of pretenders. Throughout the whole period we have been considering, the objection to clergy-practice by their lay rivals sprung from the selfish desire to preserve a profitable field for themselves exclusively, and by no means from acknowledged superiority of attainments

The following account of the degradation of the Profession at the beginning of the 16th century is given in Stow's Survey; "A multitude of ignorant persons,—some of whom can read no letter on the book,—also common artificers, as smiths, weavers, and women, boldly and accustomably took upon them great cures, in which they partly used sorceries and witchcraft, and partly applied such medicines unto the deceased as were very noyous, to the high displeasure of God, and destruction of many of the King's liege people."

This being the state in which Linacre found the Profession, his services to it can hardly be over-rated. His own refined and accomplished intellect had lifted him above the Practitioners of his day, but at the same time it had inspired him with the strongest desire to elevate the tone and acquirements of his Professional brethren, and to give them a recognised and higher social position, by drawing a clear line between them and all kinds of pretenders. It was a most fortunate thing that the influence of Linacre with Henry VIII. and Cardinal Wolsey made it easy for him to carry out his views. In the 3rd of Henry VIII., a Medical examination became necessary to all who desired to practise legally in London, and for seven miles round: and, although the testing board was headed by the Bishop of London and the Dean of St. Paul, it was probably the best constituted staff of examiners that could then be brought together. We here notice once more, even at this late period, the alliance supposed to exist between medicine and divinity. The reform we have mentioned led to other improvements; and in the 9th of Henry VIII. Linacre, associated with several other Medical men, obtained letters patent, by which the College of Physicians of London was established.

Here, as proposed at the outset, my essay ends; and it would be difficult to find a more natural halting-place in the history of any science. Up to this point, the contributions of our countrymen to medical progress were so few and so unimportant, that they hardly attracted notice in the general annals of medicine. Men in quest of learning and science, for the most part went abroad—and above all, into Italy; few, if any, thought of seeking them here. Even the founding of the College itself was an idea imported from Italy. But now the conflicts of the Reformation began to teach men independence of thought, and to awaken originality, while improved education refined and disciplined their minds. Our countrymen were at length about to start on the true path of Medical progress, and they have ever since kept well up in the race.

Erratum.—Page 139, col. 1, line 19, for *Henry* of Bordeaux read *Richard* of Bordeaux.

THE LONDON

PRACTICE OF MEDICINE AND SURGERY.

HOSPITAL NOTES.

STIMULANT TREATMENT IN ACUTE PERICARDITIS, ETC.

The following case, recently discharged from King's College Hospital, will furnish a good example of Dr. Todd's usual plan of treatment in the inflammations of acute rheumatism.

A cachectic, pallid girl, of nervous temperament, was admitted on account of a mild attack of acute rheumatism. It was the first she had had. Alkalies were ordered, according to the usual plan, namely, fifteen grains of the bicarbonate, and five of the nitrate of potash, every four hours. On the third day a well-marked pericardial friction-sound was heard. Opium in grain-doses every four hours was now added to the alkaline treatment, and eight ounces of brandy daily were allowed. The symptoms of pericarditis rapidly became very severe. She had great pain; much dyspnœa; pulse 140; respirations often 60 in the minute. A week later pneumonia of the right lung set in. The brandy was now increased up to ʒxij., and ultimately to ʒxv., and in place of the alkaline mixture one containing ammonia and chloric ether was given. Two days later pneumonia of the left lung showed itself. On the left side the pneumonia became very extensive. Throughout this the friction-sound was heard over the entire heart, and was very loud. No head symptoms showed themselves. There had been in the outset a suspicion of an endocardial bruit, but if it existed it became so masked by the pericardial rubbing that it could not be detected, and had ceased before the latter disappeared. The patient, when the turn was once taken, made a rapid recovery. The pneumonic dulness entirely disappeared, and she left the Hospital to all appearance quite well at the end of a month. During a week of the worst her life had been in great and hourly peril. Throughout no remedies of an antiphlogistic class had been given, no leeches used, no blisters employed. The only form of counter-irritant applied was turpentine stupes, which, on the supervention of the pneumonia, were freely used. Our readers will, probably, agree with us in considering the above an example of very bold consistency. Dr. Todd is, perhaps, the most thorough-going of the revived Brunonian school connected with our London Hospitals. With regard to rheumatism in particular, we believe that he does not claim for the stimulant treatment any power of cutting short the inflammations, but that it prevents the patient from sinking under them, and enables him to convalesce much more rapidly than if depletion had been adopted. We have quoted the case as a fair illustration of the practice of one of our leading consulting men, a most sagacious Physician, and an accomplished physiologist. We do not venture to express either approval of its teaching, or dissent therefrom. The adoption of such practice by such a man does, however, prove one fact, which will be useful to the future historian of disease, viz., that during the middle of the nineteenth century diseases of acute inflammatory nature bore with impunity a treatment consisting of the most vigorous stimulation. Should, as there appears good reason to anticipate, the revolving cycle bring us in another quarter of a century to an opposite state of things this fact will not be without its value.

SUSPECTED HYDATID CYST IN THE LIVER.

The case of a little boy, now under Dr. Barlow's care, in Guy's (Edwin Diver, bed No. 18, Phillip Ward), is well worthy the attentive investigation of those interested in the diagnosis of abdominal tumours. He is nine years old, of fair complexion, and looks in good health. His mother states that it is now about a year since he first began to complain of pain in the right side. The pain "went on and off," and was only mentioned at times. Six months later, on examining the part, she thought she perceived a lump, and this lump has since steadily increased in size. The boy has remained in perfect health, excepting having got thinner. Up to the time of his admission he was accustomed to play about as usual. He has been "subject to thread-worms." At the age of three he had what is described as a well-marked attack of jaundice, but from this he recovered perfectly; and at present there is not the slightest of bile-tinge in his complexion. The pain complained of in the side has been worse than usual of late, and its attacks more frequent. Such, then, is the history with regard to the tumour. It is easily felt as a rounded mass, the size perhaps of two fists, in the right hypochondrium. It is evidently continuous above with the liver, as there is no clear percussion note from below the level of the umbilicus until the lower lobe of the lung is reached. In the lowest part of the tumour there is a sensation as of fluctuation in a tense bag, and, on delicate percussion with the finger-tips, something very like the thrill known as hydatic fremitus is elicited. The patient's good health and spirits are inconsistent with the idea of either abscess or cancer of the liver; whilst the whole of the history fits well with the diagnosis which Dr. Barlow has given of an hydatid tumour. In particular, the on and off character of the pain is exactly what is so often met with in cases of that kind. Dr. Barlow stated, in answer to a question as to whether he approved of early puncture for hydatid cysts in the abdomen, that he preferred to leave it as a late resource, and to adopt a palliative treatment, so long as the tumour did not seriously incommode any vital organs, or otherwise produce symptoms of grave import.

KELOID DISEASE IN THE CICATRIX OF A BURN.

There is a boy now attending at the London Hospital, under Mr. Curling's care, whose neck presents a good example of that form of keloid disease of the skin liable to attack cicatrices. We first saw him about a year ago, then under Mr. Gowland's care, and his condition at present is but little altered, except that the disease is slowly spreading. On the left side of the neck and shoulder is a large and very irregular scar, left after a severe burn some years ago. Nearly the whole of this has assumed the keloid condition, and is thick, bossy, and indurated, looking remarkably as if very luxuriant and elevated granulations had healed over, and then, instead of shrinking, undergone consolidation and some increase. We have noticed exactly the same condition before in several instances, and always with the same history, the patients being almost always children. There is more of growth and of prominence than in idiopathic keloid, almost as much as in the syphilitic form of the disease. As an experiment, and without being at all hopeful of the result, Mr. Curling has tried the removal of two portions of scar. The excision was done a few months since, and already there is evidence of a commencing return to the old condition.

COMPRESSION TREATMENT OF ANEURISM—CURE BY THE CONTINUOUS METHOD.

The case of popliteal aneurism in a woman under Mr. Hilton's care, in Guy's, which we mentioned a fortnight ago, has left the Hospital quite cured by the compression plan. After a trial of the usual instruments for about six weeks without success, on account of their liability to displacements during sleep, and her inability to bear them screwed tightly down, it was determined to pursue the uninterrupted plan by manual pressure. Some of the students willingly volunteered to sit up in turns by night, and watch the instruments, and exercise pressure by the hand when the pads could be no longer borne. In this way, after three successive nights of attendance, the aneurism ceased to pulsate, and became solid. The case is a good proof of the superiority of the continuous over the interrupted plan in certain instances. Practically, a large number of cases in which instruments alone are used ought to be classed as under the interrupted method, since very few patients left to themselves to manage their instruments through the night are able to secure their continuous adaptation during sleep. In cases where the cure is delayed, the Surgeon should remember this, and at once resort to the expedient of appointing relays of dressers to watch the case night and day. We should have much fewer failures were this generally resorted to. We do not at all mean to doubt that, in the majority of cases, the interrupted plan is quite competent to effect a cure, but there are others in which it will not.

TREATMENT OF ACUTE RHEUMATISM.

We believe we may safely write it, that the opinions of London Physicians are rapidly coming into general concurrence in the rule, that the treatment of acute rheumatism should be by one or other of the salts of potash. Dr. Barlow remarked the other day to his class that he had lately been trying the bicarbonate, so strongly recommended by Dr. Fuller, but that he found it, as a rule, less efficient than the acetate, his former favourite. He felt no doubt, however, that both were useful. Especially in the most acute class did he prefer the acetate and nitrate to the bicarbonate. Very probably there may be varieties of the rheumatic diathesis, in which one or the other salt is more useful than its congener, the base, potash, being the ingredient essential to all. A combination which we have ourselves got into the habit of prescribing, is of the nitrate eight grains, of the bitartrate fifteen grains, and of the acetate a scruple, given well diluted, in a single dose every four hours.

THE PROVINCIAL

PRACTICE OF MEDICINE AND SURGERY.

THE LEICESTER INFIRMARY.

BRONZING OF THE SKIN, WITHOUT DISEASE OF THE SUPRA-RENAL CAPSULES.

(Communicated by Dr. SLOANE.)

S. A. Moore, aged twenty-one, residing at No. 39, Metcalf-street, Leicester, was admitted into the Leicester Infirmary, under the care of Dr. Barclay, on May 19. Is a servant; mother died of "decline," father healthy; has suffered no privations; very temperate.

About four years ago was "swollen all over," but, under the care of Mr. Thompson, was enabled to resume her employment in a month, quite recovered. From her statements, I believe she must have suffered from anasarca, as she could scarcely see, her eyelids were so much swollen. She had great difficulty in getting on her boots, and she passed very little water. After recovery from this attack she continued well for two years, when she was seized with rheumatic fever, which confined her to bed for four months, and two months more elapsed ere she was able to return to work. For this ailment she was attended by my friends, Messrs. Cooper and Sidley. Shortly afterwards was in this Infirmary, under the care of Dr. Crane for a month with discoloration of the skin, which appeared five days previous to admission. Was told by Dr. Crane and Mr. Smith, then *interim* House-Surgeon, that she had liver complaint; a diagnosis which was doubtless correct, as she was cured of a pain in the right hypochondrium and right shoulder which accompanied the discolouration. Believes she has never since regained her natural colour nor her usual strength, and has been scarcely able to do her work. About three weeks before admission, in May last, became very much darker in colour. Has had a cough for the last two years, and on three or four occasions has coughed up quantities of blood, varying from half-a-pint to a table-spoonful.

Decided comparative dulness in left apex, with deficient respiratory murmur; no râle; raises much phlegm with her cough; no cardiac murmur; pulse 108, very feeble; complains of pain in left lumbar region in front, which is constant—it sometimes extends up the left side to the mamma. Would sleep well if not disturbed by cough; skin over every part of body of a bronze colour, but this tint is darkest over abdomen, armpits, loins, hips, and upper and inner part of thighs; both mammæ, for a considerable distance round nipples, much lighter in colour than the surrounding skin; the margin of the darkly-tinted skin is here well defined, but irregular; very numerous white spots, of variable sizes and shapes, scattered over breast and back; proximal two-thirds of nails of fingers white, distal third brown; no scales; pain in epigastrium after food, which usually lasts about two hours; occasional vomiting—has never, she believes, vomited blood; tongue rather white, moist; bowels generally opened five or six times in twenty-four hours. Since early in May has had a rigor usually every alternate day, but not regularly so, it generally lasts about fifteen minutes, mostly comes on in the evening, but sometimes in the morning; no enlargement of spleen can be detected.

June 9th.—Urine passed 20 hours, slightly alkaline, has not an ammoniacal odour, pale coloured, with some white deposit, and a few shining pellicles floating upon the surface, sp. gr. 1008, becomes opalescent on boiling, but clears on the addition of nitric acid; deposit examined with the microscope is seen to consist of epithelial scales and mucus corpuscles; no phosphatic crystals; no sugar indicated by Moore's test; chlorides present.

July 13.—Since last report has been much troubled with diarrhœa, for which she was treated with various astringent medicines; lately she has been taking trisnitrate of bismuth with decided benefit; has lost her voice for the last month, and now speaks in a whisper; during the whole of last week had rigors, one came on about midnight each night, and during the day, if she got out of bed, on returning she would shiver for about an hour; had no rigors for about a fortnight till last week, and has had none this week; has now no pain anywhere; ten days ago had a blister applied to the abdomen, which still continues unhealed. Since the application of the blister the lumbar pain has not been felt, that in the epigastrium had previously disappeared.

July 27. Still subject to rigors; occasionally blistered; part of abdomen not yet healed. I may remark that the blister was applied for twelve hours only, and produced the usual amount of vesication; but the remaining raw surface, although regularly dressed, took an inordinately long time to cicatrise. Has had for last four days several slight attacks of epistaxis. Pulse 120, very small and feeble. Has become very weak and emaciated. Aug. 10. Died on the 8th. No purging for a fortnight before death. Sank gradually.

Necropsy fifty-four hours after death.—Very slight rigor mortis; colour of body of a lighter tint than before death; great emaciation; discolouration quite disappeared from nails. Four oz. of clear straw-coloured serum in pericardium. Left lung adherent to walls of chest by old and firm adhesions; much torn at apex in removal; whole of this lung contains much miliary tubercle, and is congested throughout. Right lung also contains much miliary tubercle, is congested at base. Omentum adherent at a few points in inguinal regions. Mesenteric glands enlarged to about the size of green peas. These masses, which appear to be tuberculous, are very numerous in this and other intestinal duplicatures of the peritoneum. Congestion in bright red arborescent streaks throughout the duodenum, jejunum, and ilium; in the latter the congestion exists in patches, but in other respects it is similar. Several large, irregular-shaped ulcers, with hardened everted edges in cæcum and colon. At the edge of one of these ulcers only was there congestion. Arborescent bright red streaks in rectum and colon, as in the small intestine. This congestion existed in the greatest degree in the rectum and duodenum. Left kidney, seven inches long and nine in circumference, is cylindrical in shape, rounded at the extremities, weighs 24 oz., the upper end was covered by the diaphragm. Anterior to this extremity, and close upon it, lay the spleen, and careful dissection was required to separate them. The smaller end of the pancreas was very closely connected by areolar tissue to the anterior surface of the kidney. At the upper end of the inner surface was the supra-renal capsule. The left ureter is hard, and enlarged to the size of the little finger. Through the canal in it, into which the little finger will almost enter, is flowing a thin, whey-like fluid, containing many small curd-like masses. On cutting into the kidney, the lower half is found to be a large cavity, filled with a fluid similar to that running from the ureter; lining this cavity is a layer of soft, white, curd-like material. In the upper half are three smaller, but similar cavities, which, with their lining material, seem so completely to occupy this part of the kidney, that no portion of renal tissue is visible, except an outside shell about three-quarters of an inch in thickness; in the lower half this shell is about a quarter of an inch thick. Under the microscope the curd-like matter is seen to be composed entirely of amorphous granules, and is, doubtless, breaking down softened tubercle. In right kidney, at upper part, is a mass of tubercle, about the size of a walnut, with abrupt edges. This kidney, in other respects, seems to be healthy. The tuberculous deposit in this kidney, when examined microscopically, is found to consist of amorphous granules, of small cells containing granular matter, several prismatic crystals of triple phosphate, and a few oil globules. Left supra-renal capsule $2\frac{1}{4}$ inches long, and one inch broad, weighs 65 grains. Right supra-renal capsule measures two inches in length, and one in breadth, and weighs 60 grains; and both appear normal, and free from any morbid deposit. In this opinion my friend, Mr. Hutchinson, to whom I sent them for examination, coincides. Nothing abnormal detected in the remaining thoracic or abdominal organs. Interior of stomach not examined.

Remarks.—There is no doubt that this was a case of bronzing of the skin. That the discolouration could not be caused by biliary derangement is proved by the facts, that the eyeballs were pearly white, and that patches of a lighter colour existed with well-defined margins. The skin was very dissimilar in appearance from that observed in cases of pityriasis versicolor, being much darker in colour; besides, there were no furfuraceous scales, and no itching, and the nails were discoloured. The tint of the skin in the face was as dark as that of a mulatto, and over the abdomen, armpits, loins, hips, upper and inner part of thighs, much darker. That she was not of negro or foreign descent, I satisfied myself by careful inquiry; and I saw her father, her brother and sister, and they were all rather good-looking, and not darker than most English people. The sister was a very

pretty, clear-complexioned girl, and did not in the least resemble a mulatto. I can state on good authority, that previous to her first admission into the Infirmary, her skin was not unusually dark, and there is no evidence that she ever took preparations of silver; indeed we may presume that she did not; besides, the hue was very different from that produced by salts of this metal. During her stay in the Infirmary she was repeatedly seen by the Medical and Surgical officers of the Infirmary, and by at least a dozen other Medical brethren, including Dr. Robertson of Nottingham, who published a case of bronzing of the skin, with disease of the supra-renal capsules, in the *Medical Times and Gazette* of last year, and he said that the discolouration was much greater in this case than in his. Over the arm-pits and abdomen the colour was brownish-black, indeed, almost black. Neither the nurse nor I ever remarked an unusual odour from the body, as was observed in the two cases at the Brighton Hospital.

As far as I know, this is the second case on record in which bronzing of the skin existed without disease of the supra-renal capsules. The first case was briefly detailed by Mr. May, Jun., of Reading, in the *British Medical Journal* for 1856.

The interest of the case is enhanced by the presence of that rather rare affection—tuberculous disease of the kidneys. The pus in the left kidney could not have escaped through the ureter during life, else we should not have found such a large quantity of scrofulous, purulent fluid post mortem; and the presence of pus would have been detected in the urine by the deposit containing the globules, and the supernatant fluid ebing albuminous.

[We regret that there is one important deficiency in the otherwise most complete narrative above given. It is the microscopic examination of the skin. Although few will incline to suspect the accuracy of the opinion that the colour was totally distinct from that of pityriasis versicolor, yet the diagnosis would have acquired much additional support had the microscope proved that the change was pigmentary only, and not accompanied by any cryptogamic growth. The case appears to have closely resembled the pityriasis nigricans of older writers, an affection about which, however, it must be confessed we know exceedingly little, and which very possibly included some cases of true supra-renal melasma. It is worthy of note that the patient died of extensive organic disease, whereas important lesions of other viscera besides the supra-renal bodies are rarely met with in cases in which the skin is bronzed in consequence of their disorganisation. The case, which is one of extreme interest, makes the third in which this state of skin has been met with whilst the supra-renal bodies were in a state of health. In addition to the one mentioned by Dr. Sloane, was one which occurred at the Liverpool Royal Infirmary, and of which the particulars were furnished by Mr. Joseph Allen to the Pathological Society, and will appear in its forthcoming volume.—J. H.]

THE DERBY INFIRMARY.

COMPOUND FRACTURE OF THE PATELLA—RECOVERY.

(Reported by Mr. DOLMAN, H. S.)

A. G., aged twenty-four, a spare man, labourer at the Derby station, admitted in the Derbyshire General Infirmary, July 10, 1855, under the care of Mr. Gisborne. Whilst standing by a crane, the iron handle was jerked off with considerable force. The elbow of it came in contact with his right knee. He fell immediately, and was conveyed to the Hospital. On examination, I found a small clean-cut triangular wound over the centre of the patella. The patella itself was fractured into four pieces, which were drawn in opposite directions. The joint was laid open. Put him to bed with his leg extended, with the heel raised, and placed the fractured portions of bone as near in apposition as possible. Brought the edges of the wound together, and placed a small bit of soft dry lint over. Put two other rather larger pieces over this, and over all a rag, to be kept constantly wet with spirit lotion. The leg to be kept strictly quiet. Low diet. A saline aperient mixture.

July 15. The joint much swollen, probably from blood extravasated in its cavity. Very little constitutional disturbance.

July 20. Swelling gradually decreasing. His greatest inconvenience is flatulence, for which magnesia, soda, and peppermint were given, and relieved him.

July 25. The wound quite healed; still very tender over the joint.

Aug. 5. Suffers very little from the knee. Bears a little handling. The fractured portions not in close apposition.

Aug. 8. Applied a padded strap, to confine the broken bones together.

Aug. 15. Going on well. The pressure of strap gives him no pain. To have better diet.

Aug. 31. Walks about tolerably well with a stick. Still wears the padded strap. The fractured portions of bone pretty closely adapted. Discharged as out-patient.

Sept. 20. Came to the Hospital, walking very briskly. Returned the strap, having supplied himself with an elastic knee-cap.

Oct. 25. Accidentally met him in the street carrying his child, with perfect flexion and extension of the joint.

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Medical Times & Gazette.

SATURDAY, AUGUST 29.

THE CLOSE OF THE PARLIAMENTARY SESSION.

The session of Parliament which has just closed is, like too many of its predecessors, quite abortive as respects Medical legislation; but Medical questions have so often been brought under its notice that it is not by any means unworthy of a brief retrospect on the part of the Profession. Although nothing has been accomplished, discussions involving Medical questions have been not infrequent; and on the whole we may perhaps congratulate ourselves upon the evident interest in our affairs which has been evinced by the House of Commons. The House of Lords has not had its attention called to Medical legislation, and, except in the case of the proposed Bill to regulate the Sale of Poisons, has not discussed any matters which on our part require special notice.

We must, in the first place, reiterate the expression of our regret at the absence of Medical representatives in the House of Commons; and we cannot but regard as an injustice to our order the fact that every other Profession and pursuit in life possesses numerous able and energetic advocates and defenders, while we are left to struggle on as best we may by enlisting the sympathies or attracting the attention of such Members of Parliament as come within our sphere of influence. But while thus deploring a deficiency which we trust that any forthcoming scheme of rational Parliamentary Reform will endeavour to supply, we conceive that a debt of gratitude is due to several members on both sides of the House for the pains they have taken to make themselves acquainted with Medical politics and with the grievances which afflict our Profession, and who have on several occasions, though generally with little success, exerted themselves in bringing our claims before Parliament. The large number of members who voted on the occasion of the discussion on the Medical

Reform Bill evinces the growing interest taken in our behalf, and affords a remarkable contrast to the proceedings on many former occasions, when the prospect of a Medical Bill was sure to empty the House and thus preclude all discussion whatever. To Mr. Cowper, Mr. Headlam, Lord Elcho, Mr. Napier, Mr. Briscoe, and others, the thanks of the Profession are justly due; for, however parties may differ as to the relative merits of the plans proposed and the sentiments expressed by those gentlemen, there can be no doubt that they had all conscientiously studied the questions put before them, and in several instances, during the discussion of Medical subjects, displayed distinguished ability.

With regard to Medical Reform, we fear that its accomplishment is still very distant, and that the obstacles which exist against harmonizing the conflicting elements of opposing Corporations, Universities, and communities, are such as to inspire dismay in the heart of the most enthusiastic statesman. It is generally understood that Mr. Headlam will not bring forward his motion next session; and that Mr. Cowper, on the part of the Government, is preparing a Bill which, it is hoped, will meet the views of the contending parties and give general satisfaction. We are not very sanguine as to the result, but we feel convinced that Mr. Cowper will do his best to bring about an amicable arrangement upon a very difficult subject.

The grievances of the Poor-law Surgeons have been frequently brought under the notice of the present Parliament, but without much effect, except that the hardships to which this most meritorious class of officers have so long been exposed have now been pretty fully made known, and a hope is created that at no distant day the wrongs may be redressed. Under present circumstances, the same weary and sickening proceedings are enacted over and over again; the Medical officer is ill-treated by the Guardians, to whom he appeals in vain; he then carries his complaints to the Poor-law Board, who promise to give their "attention" to the matter, and then forget it altogether; and, finally, the case is brought before the House of Commons, who refer it to the Poor-law Board, who leave it to the local Guardians, who either dismiss the Medical officer for complaining, or drive him to resign by a series of petty annoyances. But it must not be forgotten, that the Poor-law Board have been driven, by public opinion, to mete out a small measure of justice to the Poor-law Surgeons, by making their offices permanent, and thus rendering them, to some extent, independent of the Guardians; and, although this boon to the Surgeons is still granted only to a limited extent, and is hampered by some absurd restrictions, there cannot be a doubt that it is a step in advance, and is a measure for which the Union Surgeons have reason to feel grateful.

The Board of Health has been continued for another year; this course having been apparently adopted in order to get rid of the subject for the present season, and to guard against a small Government job, which seemed to be in contemplation. In the meantime, the powers of that Board are very limited, and, so far as the Metropolis is concerned, can hardly be said to exist; and sanitary improvement is left to be carried out, or neglected altogether, at the option of the local Boards, which exercise their functions without any control or supervision whatever.

In alluding to the Board of Health, it would be unjust to omit noticing the comprehensive and convincing mass of evidence published under the sanction of that Board, on the subject of Vaccination; and we cannot but express our surprise and regret that the opportunity was not seized for proposing and carrying out a really effective scheme for protecting the people of this country from one of the greatest scourges of the human race. It will be recollected that the Report originated in the preposterous allegations brought against Vaccination in the House of Commons by an eccentric personage, unfortunately connected with our Profession, but whose Parliamentary duties, happily for Medical science, have now terminated. The absurdities in question produced such a startling effect upon those who were ignorant of Medical facts and reasonings, that a series of questions was gravely propounded, and was sent to all persons in this and other countries who had any experience of the practice and effects of Vaccination; and the result has been a most valuable accumulation of facts, which must carry conviction to the mind even of the most sceptical, and must demonstrate to every person both the innocuous nature of the operation itself, and the protection which it affords against small-pox. Why the measure for insuring efficient Vaccination has not been proposed and passed we are at a loss to understand; for those who entertained doubts can hesitate no longer, if they peruse the evidence to which we refer; and those who persist in doubting, when all reasonable grounds for doubt are removed, can hardly be regarded as rational creatures, and their opinions must be regarded as worthless. With such a valuable testimony as is now afforded from a multitude of sources as to the safety of Vaccination, and as to its protective power against small-pox, we earnestly hope that this important measure of sanitary prevention will no longer be delayed, and that it will form a prominent item in the Ministerial announcements for the next session.

The Bill for regulating the sale of poisons originated in the House of Lords; but the practical details of the measure were surrounded by so many difficulties as to lead to its ultimate abandonment. Still, public attention has very properly been directed to this very important subject in connexion with the health and lives of the people, and during next session it may be anticipated that the question will again be brought before the Legislature.

These are the chief subjects in connexion with the Medical Profession which have been discussed in the session which has just come to a close; and it is at least satisfactory to know that Medical topics have not been, as was too often heretofore the case, treated with contempt and indifference, but have been discussed with temper, talent, and patience. Let the Profession now exert itself to procure representatives, and let it oppose all measures of Parliamentary Reform which do not include such a feature; and in the meantime let all due and respectful influence be employed with members of both Houses of Parliament, in order to acquaint them with the nature of the evils under which the Profession labours, with a view to their timely redress and removal. During the ensuing recess the Peers and Commoners will be scattered over the rural districts, and opportunities will be afforded to them of learning the sentiments of their fellow-citizens; and the opportunity should not be lost of making them acquainted with the details of many social questions connected with the pursuits and the interests of Medicine.

THE WEEK.

Two cases of poisoning have been tried within the last few days at the Liverpool assizes, and in both the prisoners have been acquitted. In both cases the prisoners were mothers, who were accused of murdering their own children; one being tried for poisoning a child of four years old, and the other for poisoning two children, aged six and four years respectively. The poison said to be employed in the first case was laudanum, and that in the second case oxalic acid. In the first, or laudanum case, the mother was proved to have obtained the poison with the same fatal facility as we have had occasion to notice and to censure on several previous occasions; but she was not proved to have administered it,

nor are there any details given of a post-mortem examination of the deceased child. The circumstances of suspicion were, that the child was previously in good health; and although it happened that it was visited by two Medical gentlemen, they were unable to detect any trace of illness. The mother procured laudanum; the child died. An attempt was made by the mother to persuade the Medical men to certify that the child had died of convulsions; but they both at first refused, although subsequently it appears that one of them was persuaded to write the word "convulsions" at the bottom of a receipted bill. This satisfied the registrar, who gave a certificate of death, which was then presented to the treasurer of a burial society, and a sum of money was claimed and obtained by the mother. It will be observed that the case is very far from being free of doubt, and that some other parties, besides the mother, are not quite free from blame. In the second, or oxalic acid case, the circumstances are still more mysterious; for the poison was never traced to the possession of the prisoner. The two children who died were proved to have gone to bed apparently in perfect health, after eating some potatoes and milk prepared for them by their mother. In the space of an hour an alarm of fire was given, and the mother, running up to the room where the children slept, and which was full of smoke, brought down one child after another quite dead; but their bodies and clothes were not burned, and the bed in which they had slept was quite uninjured,—the bed of the parents alone, which was composed of shavings, having been burned. The most curious part of the history was that, on examining the bodies of the children, forty-two grains of oxalic acid were found in the elder child, and twenty grains in the younger child,—a quantity in each case, as very properly deposed by the Medical witnesses, amply sufficient to account for death, more especially when it is considered that a large amount of the poison may have been absorbed. As soon as the inquest was held upon the bodies of the children, and a *post-mortem* examination was ordered, both the parents suddenly left the country, and the mother, after a long search, was ultimately captured in Ireland. No proof whatever was given that she had obtained oxalic acid; and, from the absence of this important link in the evidence, the Judge directed an acquittal, although he intimated that there were grave circumstances of suspicion hanging over the case, and requiring an investigation.

The action lately tried in the Bloomsbury County Court, in which a verdict was obtained against a person named Kahn, has already been productive of the most beneficial results in exposing the nefarious tricks by which, under pretence of curing what are often imaginary diseases, a certain class of practitioners manage to fleece the unwary of large sums of money. The disgusting details revealed at that trial appear to have opened the eyes of the conductors of some of the political journals; and not only has the leading daily newspaper dismissed the announcements of the museum in Coventry-street from its advertising pages, but other journals of great circulation have alluded to the subject in terms of ridicule or disgust. But the matter has not ended with this public exposure of the proceedings of a class of persons who have long been making large fortunes by the plunder of their dupes; but we are informed, on the best authority, that many unfortunate victims, emboldened by the revelations to which we allude, have come forward to confront thier deceivers, and have demanded back the money of which they have been so unscrupulously defrauded. In all these cases *the money has been paid;* and we earnestly advise any parties who may happen to have been deceived or deluded by any of these harpies, whose advertisements pollute our streets and many of our newspapers, to lay their cases before some respectable solicitor, who will obtain for them speedy redress. We fear that no more public exposures can be expected, and that the "manly vigour" crew will not risk the issue of another trial like that which we had lately the duty of recording.

We beg to call the attention of our readers to the very appropriate letter addressed by Mr. Griffin to the Poor-law Board, and to his other letters addressed to the Weymouth Guardians on the subject of the inadequacy of his salary. These documents will be found in another portion of our journal. We are requested by Mr. Griffin to state that he is still continuing his exertions on behalf of his Poor-law Medical brethren, and that the movement of the Poor-law Medical Reform Association is really advancing, notwithstanding the enormous obstacles it has had to encounter. It is quite evident, from Mr. Griffin's letter to the Poor-law Board, that the officials of that Board are fully competent to arrange the questions of salary which may arise between the Guardians and the Medical officers, and that their neglect of this duty is a breach of trust. The fact is, that the authorities at Whitehall are anxious to curry favour with the local Boards, although at the expense of every principle of justice and humanity; but we trust that the persevering efforts of Mr. Griffin, backed by the press and by public opinion, will at last compel these tardy officials to fulfil the conditions of the oath they have sworn, and to remedy the evils of which the Poor-law Surgeons so loudly complain. The continuance of the present state of things is a mockery of justice, and if the Poor-law Board are to be the mere tools of the Guardians, it may become a question whether the country cannot dispense with their services, and take the control of Poor-law matters into its own hands, through the agency of the House of Commons.

The Board of Guardians of Kenmare, in Ireland, have lately adopted the very mean and paltry measure of lowering the salaries, already insufficient, of their Dispensary and Workhouse Medical officers. The salary of these gentlemen was only £100 a-year, and this niggardly Board have reduced it to £80. The occasion upon which the reduction was effected called forth from Dr. M'Carthy, one of the Dispensary Physicians, one of the most eloquent speeches we have ever perused, and which we regret to be unable to transfer to our columns. It is, indeed, too good a speech for the purpose, if its object was merely to argue against the reduction of one or two salaries by £20 a-piece; but it takes so wide a scope, and exposes so fully the wrongs and injuries which Poor Law Medical Officers endure, both in England and Ireland at the hands of the local Guardians, that it deserves the widest circulation. It is published at length in the *Cork Examiner* of Monday, the 17th inst.; and that paper offers some very just editorial remarks upon the speech itself and the unworthy conduct which called it forth. It is stated that Lord Kenmare and Lord Lansdowne possess a large amount of property in the district, and that the only effect of the paltry reduction in the salary of the Poor Law Medical Officers will be to add a pound or two per annum to their rent-rolls; but surely their Lordships must be quite unconscious that, in order to augment their yearly incomes by this trivial sum, the family of some unfortunate country doctor may be stinted of the necessaries of life. We feel convinced that, if the facts were brought under the notice of those noblemen, they would be the first to denounce the meanness, and repudiate the resolutions of the Kenmare Board of Guardians. We are glad to learn that the Poor Law Commissioners have the power of setting aside the resolutions and opposing the reduction of the salaries. We hope that they will exercise that power, and thus prevent the scandal and reproach to which such unwise economy must give rise.

A meeting of the members of the Medical Profession in Manchester and its vicinity has been held a few days since, for the purpose of sympathizing with Mr. Dyson, who has been muleted in the sum of £50 for alleged malpraxis in the treatment of a broken arm. The case, which was imperfectly recorded in the newspapers, and which, in consequence, we did not notice, appears to us to be one of very great hardship, now that the facts are fully laid before the Profession and the public. It appears that Mr. Dyson, who has practised with success for many years at Manchester, was unfortunately requested to see a gratuitous patient, who had fallen down and broken her arm; and having attended her for some months from motives of pure compassion, he effected a cure, with the exception that some stiffness of the fingers remained as the result of the accident; and we need not inform our professional readers that such a consequence is by no means uncommon after a fracture of the radius near the joint. No other unfavourable symptom supervened, and even this would, probably, have yielded to time; but this ungrateful patient brought an action against her benefactor, and notwithstanding the clearest evidence that the case was treated carefully and judiciously, the jury brought in a verdict against Mr. Dyson. We are happy to find that the Profession in Manchester have come forward in a body to evince their sympathy for their injured colleague; and, indeed, his cause is theirs, for no one, however skilful, can promise himself that he will not be subjected to some similar persecution at the hands of some mercenary patient who imagines himself or herself to have been unskilfully treated by a Medical man, and who seeks to gratify the feelings of cupidity or animosity by bringing an action at law. The juries who try such cases are generally ignorant persons, who are quite unable to understand the scientific details presented to them, and who enjoy a petty triumph in ruining a legitimate Medical Practitioner, while they would readily exonerate a quack from the consequences of his folly and ignorance, however glaring they may be. In the instance before us, we can come to no other conclusion than that the fracture of the arm was skilfully treated by Mr. Dyson, and that the resulting stiffness of the fingers was the mere natural and frequent consequence of the accident. That the patient was an object of compassion there can be no doubt, as any one must be who receives an injury of a serious character, and who is incapacitated from work; but why the unfortunate surgeon is to be punished because the treatment is not perfectly and immediately successful, we are utterly at a loss to understand. We are reminded of the custom in some eastern countries where the physician is beheaded, or otherwise punished, if his cases are unfortunate, or his medicines are unattended with the expected results. But such a system is entirely opposed to the principles of this country, and, indeed, of most civilized nations; and we are glad to find that a subscription will be immediately raised for the purpose of defraying the expenses to which Mr. Dyson has been subjected in this most iniquitous trial.

Interchange of Microscopical Preparations.—The Microscopical Society of Giessen propose an exchange of microscopical preparations, which has met with great approval. It has just published its statutes, and its first list of 340 preparations, specifying the objects, the preserving medium, the rank of the preparation (numbered 1, 2, 3, according to the rarity or difficulty of the preparation), and the name of the proprietor. Lists of duplicates and desiderata are forwarded to the Secretaries, Drs. Leuckart and Welcker, and a small annual sum is charged by the Society; but the exchange must be entirely performed by means of preparations, not money. The first lists and the statutes are published in Froriep's Notizen, 1857, Band 3, Nos. 2 and 3.

THE LATE DR. MARSHALL HALL,

The man of science is his own biographer; for, if not wholly selfish, we read his history in his works. Yet life is a process of development, and it is not until that life is done, and that process of development concluded, or at least removed beyond our range of vision, that we can fairly estimate its value, or appreciate its position. At no one period of its progress can we justly regard it, for that which occupies the present time is always projected into too high relief by the shadows which imperfect memory has thrown upon the past, and we cannot foresee the finishing touches yet to be bestowed by the master's hand when guided by the maturer mind. But when the labourer has passed beyond our feeble censure, and yet feebler praise, we may regard his work, and more duly estimate its parts;—the whole is before us, it is ours, and we can gather into one point of view the results of his life-long toil.

Of no man is it more true than of Dr. Marshall Hall that he was his own biographer; for his writings are both numerous and varied, and there is scarcely any branch of the whole science of Medicine in the literature of which we may not find his recorded thoughts. Still further, Dr. Hall was in the habit of frequently revising and adding to his earlier works, so that he carried his reader forward to the point at which, by his enlarged experience and continued thought, he had himself arrived. Some of his researches revolutionised Physiology and practical Medicine, and his language has become the current phraseology of science. So familiar are we with much that he has done, that it may seem almost superfluous to recount his work; but as yet we can scarcely regard Marshall Hall as one of the past; and it is some solace to our grief at the loss of so great a man to dwell upon his memory, to feel that his work lives after him, and almost to persuade ourselves that he is still among us.

Dr. Marshall Hall was born towards the close of the last century at Basford, in Nottinghamshire, and very early in life imbibed a love not only for scientific knowledge but for original investigation and experiment. His father, a cotton spinner by business, was in advance of his time; and, by an ingenious application of his chemical and mechanical knowledge, introduced valuable improvements into the manufacture of cotton.

At the Nottingham Academy Dr. Hall commenced his general education, and subsequently at Newark he received his first instructions in medicine and chemistry. At the age of 20 he entered upon University life at Edinburgh, and graduated three years later in 1812. Such was the reputation he had earned while in Edinburgh, that almost immediately after taking his degree, and after having returned to Nottingham in order to enter upon Medical practice, he was nominated for the office of resident House-Physician to the Royal Infirmary in which he had studied.

For two years Dr. Hall held this important position, and it was one which conferred upon him peculiar advantages,—a large field for observation, and the companionship of many distinguished men, earnest and enthusiastic in the pursuit of scientific knowledge. That such advantages were well employed Dr. M. Hall gave full proof during the period of their continuance; and we, in later years, can recognise their influence in the results obtained by the persistent energy and originality of his mind.

Gratefully as Dr. M. Hall felt and ever looked back upon his career at Edinburgh, he did not rest satisfied with the teaching of one school; but accomplished, under much greater difficulties than are to be encountered now, visits to Paris, Berlin, Giessen, Göttingen, and other of the celebrated Continental seats of learning.

Returning to England in 1815, Dr. M. Hall commenced practice as a physician in Nottingham. His success was rapid. He was appointed Physician to the General Hospital, and for ten years he remained in his native County. But during this time he was actively engaged in scientific work, and in establishing for himself a reputation of wide extent. Through the medium of the Medico-Chirurgical Society, the results of his researches on "The Effects of the Loss of Blood," were generally known, quickly appreciated, and

adopted; and in 1826, when Dr. Hall entered upon practice in the Metropolis, he was well known to the Profession as a careful observer and independent thinker.

Dr. Hall was universally kind to all who were interested in the studies which so thoroughly absorbed his own attention. We remember well, and with much gratitude, his inviting to his house two or three students from each of the principal schools in London, and devoting the whole of an evening, week after week, to the repetition of some of his experiments, and the instruction of this private class. He would, at once, perceive the difficulties which these tyros in physiology felt, and by clear statement and illustration solve them. He would ask questions which are not yet answered, but would suggest means by which the answers might be sought and found. He would stimulate inquiry, by pointing out lacunæ in the science; and he would dwell with enthusiastic admiration upon the beauty of a natural object, or with calm complacency on a discovered law. At all times he was the same instructive friend, and there are many who owe to him much of their real enjoyment in the search for physiological truth.

Dr. Hall's success in London was extraordinary for its rapidity and permanency; and, although unattached to any Hospital, he was able, at the age of sixty-two, to retire from the active duties of his profession.

In 1853, he paid a lengthened visit to America, and received from the Medical profession of that country a most distinguished welcome. His attention was earnestly directed to the condition of the slave, and the results of this attention were embodied in a little treatise, entitled, "The Two-fold Slavery of the United States."

The winter of 1854-5 Dr. Hall passed in Italy; his health had seriously failed, and the changes of our climate aggravated sufferings which he had for many years endured most patiently.

During these later years, however, he was still pursuing with restless energy his own favourite studies, and, until within the last few weeks, was active in his work. His sanguine temperament and still progressive mind led him, even while the hands of disease and death were laid upon him, to anticipate and plan out yet further toil, and to treat lightly the warnings that were given. But his work was done; and he—who had unravelled many mysteries of life, and who had drawn back again to life many whom disease had in part covered with the dark mysteries of death—had for himself to pass through the darkness; and solve the last great problem of humanity.

If we endeavour to appreciate Dr. Hall's position, method, and special characteristics as a scientific man, we find much to instruct and interest.

He commenced his Professional studies at a time when the dogmatism of the schools was being shattered by new and independent inquiry; when the authority of great names was yielding to that of far greater truth; when the professional mind was awaking to the great fact that systems and theories which failed in practice must be defective in construction; and when the reverence, loosened from antiquity, was as yet without satisfactory objects for its exercise. The inductive method, long before applied to physical science, was only just extended to Physiology and Medicine; and, as a necessary consequence, the work accomplished was, in the first place, destructive. Vast lacunæ presented themselves in every branch of the science of life, and many hasty generalizations, and *à priori* doctrines were being constructed to bridge them over. Facts were accumulated rapidly, new fields for investigation were discovered, and new means of research were employed. Anxious to supply something in the place of what was taken away by the comminution of old laws, many caught at mere floating approximations to the truth, and shaping them to make them elegant, held them forth as safeguards from total destruction in the sea of scientific doubt and despair.

The "numerical method" was not as yet employed in medicine, and those who were eager for truth, were yet too impatient to wait for it, and consequently rested satisfied with insufficient data, and with a lower degree of certitude than that which is now held satisfactory. In such circumstances the kind of mind which was the most highly prized was that which could present results quickly; and by striking out new points for observation, could supply materials with which apparent accuracy could be rapidly secured.

The character of Dr. Hall's mind was such as not merely to meet the requirements of this time, but to mould and direct them. He was able, by seizing upon great principles, not only to supply the immediate want, but to lay the basis of enduring scientific superstructure.

The method of Dr. Hall was that of observation and induction; and to his rigid application of this method the sciences of physiology and medicine are indebted for some of their most important doctrines. But Dr. Hall's genius was of such order that he did not constantly confine himself within the limits of any system. His perception was rapid, his mind original and fertile in devising explanations, and occasionally by intense contemplation of a few facts or instances, he would arrive at an interpretation of phenomena, which could be satisfactory only when based upon a more extended observation.

In such instances, although Dr. Hall frequently perceived great truths which had hitherto escaped observation, he occasionally presented them as more general in their application than they were proved to be; and, by regarding certain statements which he could make as laws, he was led to endeavour, and sometimes not successfully, to explain away apparent exceptions.

This tendency of mind very generally accompanies genius such as that of Dr. Hall. A mind so independent and productive as his, so rapid in its action, and so restless in its onward progress, was compelled, by the necessities of its own constitution, to leap over, pass round, or in some manner get beyond obstacles which would not only retard, but often altogether obstruct the advance of a less gifted intellect. Were it not for such minds, science would never have made the progress that it has made; they carry us beyond, and out of our present reach of thought, and their very errors become the means of discovering new relationships, and of advancing the realization of the truth.

The productiveness of Dr. Hall's mind, and the wide range of his observation can be only correctly estimated by a reference to his published works; but these are so numerous and so varied, that a mere enumeration of them would form a lengthened catalogue. A bare repetition of their titles would be of little service, while a representation of their contents would be impossible within our present limits. It is preferred therefore to classify these works, and select the more important for consideration. There is a remarkable vigour and terseness in the style of them all; and it is an extraordinary fact, and one illustrating Dr. Hall's power of abstraction and concentration of mind, that the majority of his later productions were not only composed, but written in his carriage, as he journeyed from the house of one patient to that of another.

Dr. Hall's career as an author may be divided into four periods. In the first he was occupied with *general* physical, chemical, physiological, and medical work; in the second with *nerve-physiology;* in the third, with the *pathology* of the nervous system; and in the fourth with its *therapeutics*. His attention to either one of these subjects at no time excluded the others, but we may distinctly recognise the predominant direction of his mind.

In the first period Dr. Hall produced several chemical and physical papers, some of which were published in *Nicholson's Journal*, and others in the *Journal of the Royal Institution*. Very early in his university studentship he generalised upon the presence of oxygen in compounds; subsequently he devised an aërometer for pneumatic experiments; studied the movements of the barometer; devised a method of producing intense cold; a mode of preserving vegetable remedies; and contributed a paper upon the spontaneous combustion of cotton imbued with linseed oil.

After this his attention was directed to physiological and medical questions, and he published as separate works, "The Principles of Diagnosis;" "The Effects of Irritation and Exhaustion after Parturition;" "Commentaries on the Diseases of Females;" an "Experimental Essay on the Circulation of the Blood;" and "Observations on Bloodletting, founded on Researches on the Morbid and Curative Effects of Loss of Blood."

The last-mentioned work, published in 1830, but the principal results of which had been communicated to the Royal Medical and Chirurgical Society six years previously, was one of the most important contributions which Dr. Hall made to practical medicine. At the present day we cannot sufficiently appreciate its value, since the system of bloodletting has happily, through its influence, declined; but at the

time when Dr. Hall wrote his memoir, the practice was to carry depletion in all inflammatory or supposed inflammatory cases to a frightful extent. Dr. Hall showed not only the uselessness, but the injuriousness of such a proceeding, and pointed out a ready method by which, in obscure cases, the process of bloodletting might be converted into a means of diagnosis, and be thus rendered safe to the patient.

But Dr. Hall was not content with demonstrating a barren fact; he gave at the same time the rationale of his discovery, and showed that many so-called cases of inflammation were nothing more than examples of irritation.

Closely related to this subject was Dr. Hall's contribution to the Medical and Chirurgical Society, "On a Hydrocephaloid Affection of Children, arising from Exhaustion." It is almost impossible to exaggerate the importance of this paper; but all who have seen much of the diseases of children must be familiar with the affection described by Dr. Hall, and many can recollect the time when the treatment of such cases ended almost universally in death.

In addition to these works, he wrote also upon the physiology of speech, and on the rationale of vomiting; in the latter pointing out that the diaphragm did not engage actively in the process, but that it became fixed, and thus furnished support to the stomach. He proposed a new arrangement of cutaneous diseases, contributed a paper on Gangrene of the Face in Children, and described an operation for the cure of Nævus, and another for Prolapsus Uteri. At this period Dr. Hall communicated to the Royal Society of London two very important and most elegant papers—the one "On the Inverse Ratio between Respiration and Irritability in the Animal Kingdom," the other "On Hybernation." The first of these papers is one of the most beautiful examples that we know, of widely extended observations and previously disjointed facts, all brought together and rendered harmonious by the insight and genius of a master mind. The second is an application of the first to one group of phenomena.

As resulting from the researches of this period in his career, Dr. Hall published a work entitled "The Principles of the Theory and Practice of Medicine;" but it was while engaged in the study of the circulation that he made an observation on Motility, which led to those researches in nerve physiology which we have denominated the second period of his authorship. The first fact that presented itself, in the tail of a decapitated triton, all know full well; many had observed similar facts before, but Dr. Hall exclaimed, "I will never rest satisfied till I have found all this out, and made it clear."

The results of his earlier attempts to unravel the mystery were embodied in two Memoirs presented to the Royal Society,—the first in 1833, "On the Reflex Function of the Medulla Oblongata and Medulla Spinalis;" the second in 1837, "On the True Spinal Marrow, and the Excito-Motor System of Nerves." If similar facts had not occurred in the previous history of science, we could scarcely credit it; but Dr. Hall's second paper was refused a place in the "Philosophical Transactions!"

It is much to be regretted that angry contention, and the attribution of unworthy motives have entered into the too well-known discussion with regard to Dr. Hall's share in the discovery of the true medulla spinalis and the reflective function.

The facts are simple, and easily verified by a reference to the several authors whose names have occurred in the controversy. Unzer, in 1771, had dimly seen, and obscurely described, the existence of certain movements, independent of the will, and even of consciousness; but he did not describe with any accuracy the portion of the nervous system upon which they depended.

Prochaska, in 1784, separated distinctly these involuntary movements from those which are accompanied by conscious sensation, and he ascribed them to a reflective function of that portion of the nervous system, which was "coextensive with the origin of nerves." He pointed out that the movements of respiration and the convulsive movements of epilepsy were of this nature; and made other applications of his doctrine, both to physiology and pathology. While fully admitting that Dr. Marshall Hall was not indebted to Prochaska for his discoveries made in relation to the reflex action, we cannot but regret that Dr. Hall was never able to appreciate the value of Prochaska's published views, or even to acknowledge the important light which the latter physiologist had thrown upon the functions of the spinal cord.

Le Gallois, Bichât, Flourens, and others, had observed similar phenomena, but had not so correctly appreciated them as Prochaska had done; but the views of Prochaska were undeveloped by himself, and unknown to others; so much so, that in 1830, in the "Dictionnaire de Médecine et de Chirurgie," a work conducted by Andral, Cruveilhier, Bouillaud, Foville, and others of the best informed physiologists and pathologists of the time, we find the following:—"Les nerfs, ainsi que la *moelle épinière*, ne sont par eux-mêmes ni sensibles ni contractiles, qu'ils remplissent uniquement le *rôle de conducteurs* dans l'exercice du sentiment et du mouvement."

Dr. Marshall Hall's memoir, presented to the Royal Society in 1833, described the reflex function of the medulla oblongata and medulla spinalis, discovered independently of all who had preceded him; and his almost unnumbered productions since that time have fully established the reflex function as a distinct element of physiological science,—have shown the part which it takes in all the important functions of health,—have developed its application to pathology and therapeutics,—and have rendered it of as much service in the interpretation of the manifold mysteries of life, throughout the whole animal creation, as the discovery of the circulation of the blood. It is not he who, like Unzer and Prochaska, first rudely hints at, or even accurately describes a new phenomenon, to whom our thanks are due as the discoverer; but to him who has laboriously examined, experimented upon, analysed, and so compared the phenomena, that he can state their laws, and render them serviceable both to science and humanity.

Dr. Hall's views upon the irritability of muscles may be mentioned in illustration of certain remarks already made upon his method. He had observed that when the muscles were by any means severed from their connexion with the spinal cord, their irritability diminished. Here was an important fact, of great utility in the diagnosis of disease; but Dr. Hall's interpretation of the phenomena was that the spinal marrow was the *source* of muscular irritability; an interpretation which subsequent researches by Dr. John Reid and others have, to the majority of physiologists, proved to be erroneous. But here, as in many instances, the result was the discovery of a new and valuable fact, viz., the influence of the nervous centres, and of muscular action upon nutrition.

Dr. Hall's numerous applications of his great discovery to Pathology form the next group of works, or period of his authorship. "Lectures on the Nervous System;" "Memoirs on the Nervous System;" a "Treatise on the Diseases and Derangements of the Nervous System;" and a "Synopsis of the Diastaltic Nervous System," rapidly followed each other as separate works; while numerous memoirs, papers, clinical notes, and lesser communications, appeared in the Transactions of the Medico-Chirurgical Society, the Lancet, and other journals.

The class of Convulsive diseases formed Dr. Hall's especial study, and to their interpretation he brought, with unrivalled energy and ingenuity, the results of his physiological researches. The great merit of demonstrating the part taken in convulsions by the spinal cord was Dr. Hall's; for although Hoffman, and, following him, Lieutaud, Burserius, and Prochaska, had said that the medulla spinalis was affected in convulsions, and although Prochaska had referred epileptic convulsions to reflex action, these views were either unknown or were not received.

Thus, in Germany, we find Wenzel, in 1811, making no mention of either the spinal cord or of reflexion, in his treatise upon "Epilepsy," but referring all the phenomena of that disease to enlargement of the clinoid processes, together with affections of the pituitary body and Pineal gland.

In France, Portal, in 1827, thus expressed himself:—"Comme nous n'avons pas de telles connaissances, et que nous ne les aurons probablement jamais, nous ne pourrons non plus, en aucune manière, expliquer la cause immédiate ou prochaine des symptômes qui constituent l'épilepsie:" and Brachet, so late as 1837, in his "Traité Pratique des Convulsions dans l'Enfance," to which the Académie de Médecine awarded its prize, refers convulsions to "l'irritation directe ou indirecte de l'encéphale."

In our own country we find that Dr. Prichard, in 1822, referred epilepsy to congestion of the brain, and ignored altogether the doctrines of both Hoffman and Prochaska; while Dr. Abererombie, in his "Researches on Diseases of the

Brain and Spinal Cord," published in 1829, alluded to the idea of Hoffman, that the spinal cord was affected in convulsions, but, in doing so, made the remark, that "these doctrines, however ingenious, are to be regarded as little better than conjectures."

To Dr. Marshall Hall is due the merit of having rescued the obscure class of convulsive affections from a region of utter unintelligibility, and of having referred them to the derangements of an organ, the functions of which his own researches had enabled him to explain.

But Dr. Hall did not rest satisfied with a mere general reference of these affections to disorders of the spinal cord. He devoted all his energies to the discovery of the modus operandi of the morbid centre, or convulsive tendency, in producing an attack. Various papers appeared in the *Lancet* on "The Neck as a Medical Region;" and the more important portions of these were comprised in his "New Memoir on the Nervous System," and in his "Aperçu du Systême Spinal," written and published in Paris only two years ago; and in these productions Dr. Hall described with remarkable ingenuity the mechanism of the convulsive paroxysm, and of many other affections assuming a paroxysmal type.

In these papers he has directed attention to the existence of four classes of epileptic paroxysm,—the laryngismal, trachelismal, syncopal, and abortive, and has not only described more or less fully the mechanism of each, but has laid down rules for their diagnosis and treatment.

Some of the opinions advanced in these later periods have yet to receive the confirmation or correction of enlarged experience; but, whatever may be the issue, the Medical profession is placed under an obligation of gratitude to their distinguished originator for having indicated the path along which investigation must be carried to be successful.

Allusion has already been made to Dr. Hall's researches on the irritability of the muscles in paralysed limbs; and, whatever may be the truth yet to be attained with regard to cerebral paralysis, to him is due the merit of the discovery, that in spinal paralysis the irritability is constantly diminished, and that in cerebral paralysis it is not.

During the whole of his career, the science and art of therapeutics were constantly held in view by Dr. Marshall Hall, but the special earnestness with which he dwelt upon the subject in later years constituted a fourth period of his literary life.

The action of strychnia as a spinal excitant, or in small doses as a spinal tonic; the direction—general, regiminal, and medical—of the epileptic patient, in order to avoid all the excitants of convulsive action; the recommendation of tracheotomy in laryngismal epilepsy; and the simple but beautiful "Ready Method in Asphyxia," were among the later efforts of Dr. Hall's great genius.

On the action of strychnia Dr. Hall has written some important papers in the *Lancet*, *Les Comptes Rendus*, and in his new memoir on the nervous system; and his researches on this subject led him, during the trial of Palmer, to devise a physiological test for the presence of strychnia in fluids, which far surpasses in delicacy any chemical test hitherto discovered.

The treatment of epilepsy has been rescued by Dr. Marshall Hall from mere empiricism; and many are now living, and in the enjoyment of health, who can bear the most convincing evidence to the success which attended his practice.

With regard to tracheotomy in the treatment of epilepsy, it must be admitted that the results hitherto obtained are not such as to demonstrate the correctness of Dr. Hall's views. But although the operation has failed in several instances, it has met with success in others; and if, hereafter, there should be established some reliable means of diagnosticating the cases in which it shall prove successful from those in which it will be useless, Dr. Hall's suggestion will be, as a scientific discovery, not inferior to that of Leverrier, and as a boon to humanity, scarcely less valuable than that of Jenner.

The "Ready Method in Asphyxia," was one of those happy thoughts which, after applied, astonish us by their simplicity. The feature of great importance is, that in performing artificial respiration the body should be placed prone instead of supine. In the former position respiration may be easily continued, in the latter it is almost if not quite impossible. Already the advantage of this method has been fully established, and future generations will doubtless utter their thanks to him who has so recently passed from ours.

Besides his Medical works, Dr. Hall wrote a tract upon the Drainage of the Metropolis, suggesting many alterations which, although highly approved, are not as yet carried into operation. In the little work already mentioned, on the "Twofold Slavery of the United States," he gave much interesting and valuable information, and advanced a plan for the real emancipation of the slave, which, if unable to meet all the exigencies of the case, was yet far superior to the majority of schemes previously suggested.

The recognition of Dr. Marshall Hall's merits, as a scientific man, has been world-wide. Suffice it to say that, he was a member of almost every learned Society of Europe, and, after having been for many years foreign Associate of the Académie de Médecine of Paris, he had, only recently conferred upon him, the distinguished honour of election as a Member of the Institute of France.

As a practical Physician Dr. Marshall Hall will long be remembered with gratitude, both by those who have had the advantage of witnessing his mode of examining a case, and by a far larger number who had the advantage of being placed under his care.

The two prominent features of his treatment were simplicity and perseverance. We have seen numerous cases in which his administration of simple aperients, together with strictly regiminal measures, had wrought extraordinary cures; and we know of previously paraplegic men, now well, who, under his direction, took strychnia for much longer than a year; and of so-called epileptics who slowly recovered from the most frightful combination of symptoms, while kept by Dr. Hall for sixteen or eighteen months under the influence of mercury.

To the poor Dr. Hall was universally attentive and kind. He constantly had under his care large numbers of gratuitous patients; but besides the quite humbler classes, there were numbers placed pecuniarily in the lower ranks of the middle classes, to whom gratuitous advice is a far greater charity, and these he was ever ready to welcome, and from them he would receive no other reward than gratitude. "Our mission is to cure the curable, and comfort the incurable," we have more than once heard him say; and in fulfilling that mission he had his reward.

He has gone, and whither he has gone we cannot follow him; but his works live after him, and we know that thankfulness to him fills many hearts when they join the unbroken circles of their homes, and that tears fill many eyes when they read that Marshall Hall has passed "into the silent land." For, although—in recognising that "de siècle en siècle le même fait historique se reproduit; la foule des travailleurs se précipite, toujours plus nombreuses, dans les voies qui viennent d'être ouvertes; *quelques hommes d'élite s'en ouvrent parallèlement une nouvelle*"—we may, in placing Marshall Hall among the latter, rejoice in the work that he has done; there are others who can only join with us in our sorrow that, in this world of suffering, of mystery, and uncertain knowledge, he has no further work to do.

PROGRESS OF MEDICAL SCIENCE.

Selections from Foreign Journals.

AMYLENE CONDEMNED AT THE ACADÉMIE DE MÉDECINE.

M. Giraldès having recently sent a paper to the Academy, entitled, "Clinical Study of Amylene," MM. Robert, Larrey, and Jobert formed the committee to which it was referred. In the report read on the 18th inst., M. Jobert details various experiments and observations he has since made with this substance, both with and without apparatus; and he comes to the conclusion that amylene exerts an energetic and dangerous influence. The statement that has been made, that it is less active than chloroform, is only true when it is administered in the open air, and is explained, he says, by the rapidity of its evaporation. If only a sponge be employed, there are only produced, after a period varying from nine to nineteen minutes, muscular agitation and acceleration of pulse, effects that ensue in from five to seven minutes if the sponge be placed in a cone of pasteboard. If an apparatus be employed,

however, amylene becomes a most energetic anæsthetic, the desired result occurring in two, and often in one minute. The effects of this agent are the increase of the number of the pulse by thirty or forty, the modification of the colour of the blood, and the perturbation of the nervous system, inducing insensibility, coma, and the abolition of the intellectual power. It is thus a toxical agent, acting simultaneously upon the vascular and nervous systems. M. Giraldès does not advance sufficient proof that amylene is less dangerous than chloroform; and even M. Robert's proposition of employing it in certain exceptional cases is not admissible, inasmuch as amylene possesses the inconveniences, without the advantages, of chloroform. Chloroform does not, like amylene, deprive the blood of its red colour; and while chloroform depresses and renders the pulse slower, amylene quickens it, producing congestion of organs. Amylene is of difficult administration, while chloroform is easily given. Chloroform has furnished to M. Jobert the same satisfactory results at all ages, and he believes that it is not more injurious in infancy than at a later period. He proposed that the conclusions of the author in favour of amylene should not be received; but as the communication is interesting in other points, the thanks of the Academy should be returned for it.

M. Velpeau proposed a stronger condemnation of amylene on the part of the Academy; for from the experiments even of the reporter, it was evident that amylene is more difficult to manage, and more dangerous in its results. In the recent case of death from it, there were not the attenuating circumstances adduced for chloroform or ether, such as the want of skill or experience of the manipulator, since it was the inventor himself who directed the procedure. "I maintain that a substance which in so short a time, and in the hands of him who recommends it, is dangerous to such a point, that its employment ought not to be permitted; and I propose that the Academy formally reject it."

M. Larrey observed that he completely agreed with M. Velpeau, and he should have thought that M. Giraldès, after having been present at Dr. Snow's last accident, would have somewhat modified his ideas upon the subject.

M. Jobert added, that when amylene is administered on a sponge, anæsthesia sometimes cannot be produced for half or three-quarters of an hour. If Charrière's apparatus be employed, it is rapidly induced, but at the expense of serious accidents. It differs from chloroform, in that the insensibility it induces is instantaneous and not progressive. It produces an important modification of the blood.—*Moniteur des Hôp.* No. 100.

EXCERPTA MINORA.

Glycerine Caustic in Lupus.—Professor Hebra, of Vienna, employs the following formula:—Iodine, 4; iodide of potassium, 4; and glycerine, 8 parts. It is applied on alternate days by means of a pencil. It causes pain for more than two hours, but it possesses the advantage of curing the lupus without giving rise to deforming cicatrices.

Bull. de Thérap. June, p. 549.

Detection of Corrosive Sublimate when mixed with Calomel.—The securing the purity of calomel is of such importance to the practitioner, that M. Marchandier believes that it will be of good service to publish a mode of detecting the presence of the bichloride:—Dissolve 1½ gr. of iodide of potass. in 150 grs. of distilled water. With a drop or two of this form a paste with a little of the suspected calomel on a piece of glass; and if it is pure a green colour will be produced, but if even a thousandth part of the bichloride be present, red spots will appear.—*Bull. de Thérap.* June, p. 549.

The Actual Cautery in Hospital Gangrene.—Notwithstanding the success which has been said to attend the application of iodine and other substances in certain cases, where the disease prevails in its formidable and epidemic form, they are found quite ineffectual. MM. Alquié and Bouisson, at the Montpelier Hospital have employed with great success the actual cautery, the patient first inhaling ether. The operation can then be slowly and effectually performed, several irons heated to whiteness being perhaps required. For some hours after cold water applications are made to the parts, and then compresses dipped in sulphuric ether. Very soon the pains and fever disappear, sleep returns, and the vigour of the various functions is restored.—*Bull. de Thérap.* June, p. 557.

Fracture of the Sternum.—A young woman fell from a ladder and fractured the sternum transversely at the point where the manubrium joins it. The upper end of the fracture was pressed inwards and covered by the projection of the lower to the extent of three quarters of an inch. Respiration was exceedingly difficult. Various means for reduction of the fracture were tried without avail, until the following succeeded. The woman being seated on a bed, an assistant knelt behind her, placing his right knee between the shoulder-blades, and pulling forcibly upwards with both hands placed over the shoulders, near the fracture; the Surgeon at the same time forced the upper end of the lower fragment downwards, the woman taking a deep inspiration. By the woman keeping quietly on her back no bandage was required; and there remained after the union was completed only a projection an inch in breadth.—*Méd. Zeit.* No. 23.

PROVINCIAL CORRESPONDENCE.

IRELAND.

Dublin, August 26, 1857.

On this day, which, but for the happy abolition, two years since, of the annual orgies held at the far-famed "Donnybrook," would have been the "fair-day," when the scenes of wickedness and dissipation which proved the ruin of so many would have been at their height, the twenty-seventh session of the Parliament of Science will be opened in Dublin by the Rev. Humphrey Lloyd, D.D., D.C.L., President of the British Association for the Advancement of Science, and son of the distinguished Provost of Trinity College, who, twenty-two years ago, occupied the same chair, and opened in this city the fifth meeting of the Association. The weather is most propitious, the arrangements are admirable, and everything seems to promise a successful gathering. No list of members has as yet been published; I shall therefore not at present send forward the names of those I have heard mentioned as likely to be present. I shall merely observe that the power of holding all the sectional meetings in the same building, viz., in the splendid lecture-rooms and museum just erected through the foresight and liberality of the Board of Trinity College, which I mentioned in a former communication (vol. xxxiii. p. 147), is felt to be a vast convenience, and I shall also briefly enumerate the arrangements, consisting, besides the opening meeting this evening, and the daily sectional meetings, of *conversaziones* to be given by the Royal Dublin Society and Royal Irish Academy; Professor W. Thomson's lecture on the Atlantic Cable, in the splendid new museum of the Royal Dublin Society, and a discourse in the same place, by Dr. Livingstone, on his African Discoveries; a reception by the Lord Lieutenant at Dublin Castle, on next Tuesday evening; a promenade in the Zoological Gardens; a *fête* in the Botanic Gardens at Glasnevin; the conferring of honorary degrees in Trinity College; a Concert by the Dublin University Choral Society; and excursions to the Isles of Arran, Lord Rosse's telescope, the county Wicklow, and Lambay Island. I hope next week to send you some account of the general proceedings, and more particularly of those of the Sections whose transactions are most likely to interest the Medical reader.

GENERAL CORRESPONDENCE.

TARAXACUM A SOURCE OF FALLACY IN TESTING FOR MORPHINE.

[To the Editor of the Medical Times and Gazette.]

Sir,—The chemical evidence given at an inquest lately held in this neighbourhood upon a female who died very suddenly, involves one or two points of such novelty and interest that I think it right to report the case in your columns.

Mrs. A. G., the wife of a respectable farmer residing at Dagenham, aged 21 years next birthday, mother of three children, had suffered since the birth of her first child from functional disorder of the heart. Two or three months ago her youngest child (five weeks old), was found dead in bed by her side, since which time Mrs. G. had been poorly and depressed.

On Wednesday, the 22nd of July last, she went to Romford and consulted Dr. Tabrum, who is in the habit of prescribing at a chemist's on market days; he ordered a mixture, of which one ounce was to be taken twice a day, and twelve pills, of which one was to be taken every night at bedtime.

It appears that she took a pill that night, and on the following day (23rd) two doses of the mixture, and another pill at bedtime: she made a hearty supper of bread and butter and porter.

Early in the morning of the 24th her husband got up to see if his men had gone to work; and upon returning to bed, observing that she was breathing, uneasily he raised her up in his arms, asking her if she felt ill, when she sighed once or twice and quietly expired.

On the 27th an inquest was held by C. C. Lewis, Esq., at which, after evidence had been given to the foregoing effect, Dr. Manly of Barking deposed that he had attended the deceased for several years; that she had suffered from functional disturbance of the heart since her first confinement; but that he had not observed such a state of disease as would lead him to anticipate sudden death.

Thereupon the Coroner directed that a post-mortem examination should be made, and adjourned the inquest to the 29th.

On the 27th Dr. Manly, assisted by Mr. Bowers of Romford, made the examination, and, not finding any disease to account for death, sent the stomach and its contents to Dr. Letheby, in compliance with the directions of the Coroner.

On the 29th Dr. Manly deposed that he and Mr. Bowers had examined carefully all the organs (except the kidneys), and that they found nothing to account for death; the heart was empty and rather flabby, and the brain was soft, but not more so than might have been expected from the state of decomposition in which they found the whole body.

The inquest was again adjourned to the following day, when Dr. Letheby deposed that he had received the stomach and its contents from police-serjeant Stratford; that it was much decomposed, and contained a small quantity of reddish gruel-like matter. He had made a most careful chemical examination of this, and had found in it distinct traces of morphine: the quantity detected was about one-tenth of a grain, equal to one grain of opium. Such a quantity was insufficient to cause death, but did not represent the whole amount taken, as more must have been absorbed. In the absence of any other ascertained cause of death he should conclude the deceased died from the effects of morphine, or opium.

At this stage of the proceedings it seemed clear either that morphine had been taken intentionally by the deceased; that it had been administered by some one about her; or, that it was contained in the medicines. The coroner, therefore, adjourned the inquest to the 3rd of August, in order to give Dr. Letheby time to analyse the remainder of the medicine, and procured copies of the prescriptions from the chemist who dispensed them: they proved to be as follows:—

℞ Pil. galbani, comp. ʒiss., pil. hydrargyri, gr. vi. Divide in pil. xii.—M.

℞ Sp. æth. sulph. comp. ʒiss., extr. taraxaci, ʒiss., acid. nitr. dil. ʒi, aquæ camph. ʒviii.—M. ft. mist.

On the 3rd of August the jury met for the fourth time, when the coroner read a letter from Dr. Letheby, in which, after stating that he had just completed the examination of the medicines received from police-serjeant Stratford, he continued as follows:—

"I do not find any trace of morphine or opium in either of them, but I do find in the dark ethereal mixture contained in the six-sided bottle a peculiar resinoid body which exhibits several of the reactions of morphine, and this I am disposed to think is the matter which I found in the stomach. Having it in larger quantity I can easily distinguish it from morphine, but where it occurs as a trace only in the contents of the stomach it is possible that it was mistaken for that poison. I am glad to have made these examinations of the medicines, because the results will remove suspicion that might otherwise have attached to the case."

An open verdict was returned.

As this peculiar resinoid body must have been a constituent of the taraxacum, several very important questions arise respecting it.

1. Is it always present in taraxacum?
2. What were the tests rendered fallacious by it?
3. What are the best methods of discriminating between it and morphine?
4. If a constituent of taraxacum, is it also present in chicory and other plants of that group of the Compositæ?

This last point appears to me to be very important; for chicory being so largely consumed as a substitute for coffee it must be very frequently present in the stomachs of deceased persons, and might prove a serious source of confusion in testing for morphine. It would appear that a very small quantity of this peculiar resinoid is capable of giving the reactions to which Dr. Letheby alludes, for the deceased had taken only two doses of the mixture, *i. e.* about twenty-two grains of the extr. taraxaci, and those some time during the day, and as the chief part of the bread and butter and porter had disappeared from the stomach, although taken just before going to bed, it cannot be presumed that much of the taraxacum taken previously remained in it.

It must be regarded as a most fortunate circumstance in this case that the whole of the medicine was not taken by the deceased, for had not a portion remained for analysis it is clear that the suspicion of poisoning would have continued unshaken.

I trust that this brief notice will induce Dr. Letheby to communicate his observations upon this important substance, and that it will draw the attention of analysts to chicory and taraxacum, for it is absolutely necessary, in a forensic point of view, that their composition and properties should be immediately and thoroughly investigated.

With respect to the composition of taraxacum, Pereira mentions (Materia Medica, third edition, vol. ii. part ii. p. 1574) that C. Sprengel analysed the leaves and stems, and found in 100 parts only 0·100 of wax, resin, and chlorophyll.

The milky juice of the root analysed by John gave only traces of resin, sugar, and gum. Mr. Squire mentions no resin or resinoid in his analysis of the expressed juice.

Frickhinger makes no mention of resin in his comparative analyses of roots gathered in Nov., 1839, and April, 1840.

Chicory would appear, from the analysis given of it by John (Pereira, op. cit.) to contain no less than 3 per cent. of resin.

The extract of taraxacum in the medicine examined by Dr. Letheby was procured from Barron and Harvey, Druggists, Giltspur-street; and Mr. M'Carthy, the Romford chemist, who dispensed the prescription, has still about a pound of it in stock. I am, &c.

Romford, August 20, 1857. NORRIS F. DAVEY.

INJECTION OF BODIES FOR DISSECTION IN PARIS

[To the Editor of the Medical Times and Gazette.]

SIR,—Having studied Practical Anatomy in the schools of Paris during the last nine months under circumstances of comparative comfort, I am induced to inform you by what means the atmosphere of the dissecting room is kept pure and the subjects fresh, and consequently are less injurious to health than is the case in the British schools.

As soon as the corpse is brought to the school it is injected (generally by opening one of the common carotids) with a solution of the sulphite of soda, which salt has the properties of preventing putrefaction, of preserving the red colour of the muscles, and also prevents any ill effects arising to the student from cuts or scratches. The quantity of the salt required for the body of an adult is two pounds, dissolved in eight pints of water; the cost of this drug in Paris being one franc per pound. At the expiration of twenty-four hours from the saline injection the subject may be injected as usual with tallow, or other suitable substance. I should observe that this salt corrodes the knives slightly; but I think you will allow that the above advantages far surpass this single disadvantage. I am, &c. C. F. MAUNDER, F.R.C.S.

Paris, August 17, 1857.

VENTILATION OF SHIPS.

[To the Editor of the Medical Times and Gazette.]

SIR,—As an immense population, naval, military and civil, is destined to pass long periods on board ships, in passing to and from India and China, and in prosecuting the war in those countries, exposed to the muggy, heavy atmosphere of the Chinese and Indian seas and rivers, I beg, without further

apology, you will permit me a short space in your Journal to make more generally known, than it appears to be to the owners of transports and others concerned, the system of Dr. Van Hecke for the ventilation of ships. This method, with others, was experimented upon on board the Adour and Gironde at Toulon a few months ago, and was found vastly to supersede in effect all others put in comparison with it: the relative effect produced being 17 to 1 under one condition, and even 25·8 to 1 in a more favourable one.

The system of Van Hecke is the same as that established by him in No. 4, Pavilion, at the Hospital Beaujon, in Paris, and is that system of artificial or mechanical ventilation called "double action," and is established in a single funnel leading from the centre of the deck down to the hold, having sliding doors, to be opened and shut at will, at each deck, to draw out vitiated air, and to permit the pumping in of fresh air, as required. The funnel is furnished at top and bottom with palettes—sails like a windmill; but only two in place of four, which are made to revolve by means of a cord connecting the spindle of the palettes with a fly-wheel on deck, which is worked by a man, or by the steam-engine. By putting in motion the superior ventilator, air is extracted, and injected when the cord is shifted to the inferior ventilator. The advantages in favour of this system are "enormous," according to a Report in the "Annales d'Hygiène Publique" for July last. With the system of Sochet, tried on board the Gironde, at Toulon, the number of turns of the handle of the fly-wheel in two minutes had been 128, and the quantity of air injected 181 cubic metres (39 English inches square), or 5430 cubic metres an hour. In Van Hecke's system, tried at the same time on board the same ship, the number of turns of the handle of the fly-wheel in two minutes had been 52, and the quantity of air injected 612 cubic metres, or 18,360 cubic metres an hour. The Adour took out convicts to Cayenne, and has just returned. A report on Van Hecke's method of ventilation, established on board, will appear in a few days in Paris, and some most interesting and valuable facts proving its high sanitary qualities will be published. This vessel brought home 196 sick from the Hospitals at Martinique and Cayenne, and arrived at Brest without having lost a man. She took out 500 *forçats*, and did not lose a man.

I think you will be doing a service to notice this method without delay, to promote its general adoption in hospital as well as passenger ships, and ships of war now navigating and riding at anchor in the close, heavy atmosphere of the Indian seas, where often scarcely a breath of air stirs to permit the fever or cholera patient to breathe new air in his berth. With the old "windsail," of course there was no ventilation between decks except when there was wind. With this and other mechanical systems, ventilation is thorough even when the ports are closed. I beg to forward you a very important document, published the 12th of this month by the administrators of Public Assistance of Paris, reporting upon the successful adoption of this particular system at the Hospital Beaujon in Paris. It is also to be established in a part of the Hospital Necker, yet unventilated.

I am, etc. FREDERIC ROBERTS,
Staff-Surgeon, First Class.

Dunkirk, August 21, 1857.

P.S. Van Hecke's system is patented on the Continent, in England, and the United States.

[We have received a copy of the procès verbal, in which M. Van Hecke's plan of ventilation is explained and commented upon with approbation.—ED. M. T. and G.]

TREATMENT OF DIARRHŒA.

[To the Editor of the Medical Times and Gazette.]

SIR,—Will you permit me, in these days of diarrhœa, to recommend to those of the profession who do not make use of it, the compound ipecacuanha powder, as a cure for ordinary diarrhœa?

It may seem very superfluous to speak of so well-known an article of the pharmacopœia; but I do so for two reasons:—First, because I do not find, on inquiry among professional friends, that the drug is one in common use for the purpose indicated; and secondly, because, having used it for many years, and rather extensively, I can safely state, that I know no other remedy equal in efficacy to it, as a cure for diarrhœa.

Five grains in powder, given in a teaspoonful of gruel, and repeated after each loose stool, is the simplest way of its administration. The powder acts better than the pills of it, for these are apt to become hard and indigestible.

Of the theory of action of the drug I have nothing to say. It may be suggested that opium is no novel invention in diarrhœa; but in answer I must observe, that Dover's powder is not opium. All I know is, that I give the drug, and that it very rarely fails to fulfil the indication for which it is exhibited.

I am, etc.

W. O. MARKHAM.

Clarges-street, August 24, 1857.

MR. GRIFFIN AND THE POOR-LAW BOARD.

12, Royal-terrace, Weymouth, August 19, 1857.

My Lords and Gentlemen,—I have the honour to lay before you copies of letters recently addressed by me to the Weymouth Board of Guardians. I regret to say the Board neither adopted my suggestions nor vouchsafed any reply, regarding the inadequacy of my payment, though I understand it was stated that if I did not like my appointment I might give it up.

During the last two years I have repeatedly represented to them that my salary is insufficient for the duties I am required to perform, and that the division of the original sum was unfairly made, yet I have received no redress, but the reverse, as during that time two motions for my expulsion from office have been forwarded to your Honourable Board—a novel mode certainly of redressing grievances, which, however, was not sanctioned by your acquiescence. During the same period I have frequently memorialised your Honourable Board, and have received promises of "consideration" or "attention," but nothing further. Two years and nearly a half of hard work, and little, I might say no remuneration, (for such is the fact when the expenses of my office are paid,) puts a man's endurance of ill treatment severely to the test, and makes him look through the Poor-law statutes to see on whom the blame legally rests. In these statutes I find it recorded that the members of your Honourable Board have sworn, "that you will faithfully, impartially, and honestly, according to the best of your skill and judgment, execute and fulfil all the powers and duties of Commissioners;" and in the 4th and 5th William IV. cap. 76 and 46, I read, "And be it further enacted, that it shall be lawful for the said Commissioners, as and when they shall see fit, by order and under their hands and seal, to direct the overseers or guardians of any parish or union, or of so many parishes or unions as the said Commissioners may in such order specify and declare to be united for the purpose only of appointing and paying officers, to appoint such paid officers, etc.; and the said Commissioners may, and they are hereby empowered, to define and specify and direct the execution of the respective duties of such officers, and the places or limits within which the same shall be performed, and direct the mode of the appointment, etc. etc., and when the said Commissioners may see occasion to regulate the amount of salaries payable to such officers respectively."

From the foregoing quotation it strikes me forcibly that in your Honourable Board is vested the sole power to regulate the salaries of your Medical officers. I therefore call upon you to act up to the true intent and meaning of your oath, and impartially to carry out the law of the land, and to award to me such a salary as will give me the means not only of purchasing the necessary medicines and appliances for my patients, but at the same time to remunerate me for my labour and professional acquirements, and no longer permit the Guardians to dole out to me such a miserable pittance that when the salary is divided in proportion to the number of my patients it averages but 1s. 4½d. for each case of sickness. Let the law be carried out "impartially," and compel the Guardians to do justice to all their officers, and do not permit them capriciously to deal with the money of the ratepayers, and to give to one officer but 1s. 4½d. per case, while they give to another 2s. 6½d., and to a third 16s. 3¼d., for attending patients who are similarly situated as far as concerns distance from their respective residences.

The power of regulating our salaries has hitherto been delegated by you to the Guardians, but they, as your representatives, have failed to carry out impartially the powers entrusted to them; I therefore now call upon your Honourable Board to

take the matter into your own hands, and regulate my salary as by the law of the land you are bound to do.

History teaches, that most of the calamities affecting nations arise from the just complaints of individuals being unheeded by those in authority; examples innumerable might be cited, but the sufferings of our army in the Crimea are so fresh in our memory that it needs no other example. I pray you, therefore, no longer to disregard the complaints of your Medical officers, in whom you have reposed a solemn trust—the care, during sickness, of no less than four millions of the labouring classes of this great kingdom. If you do not provide your Medical officers with the means, how is it possible they can purchase the requisite materials to treat their patients successfully? It is not possible for me, without private sacrifice, to supply leeches, cod-liver oil, and a host of expensive medicines, out of 1s. 4½d. per case. Surely it cannot be right to tax a man's private resources? It is unjust to the officer, and endangers the welfare of the poor. On you, therefore, my lords and gentlemen, rests an awful responsibility. About 1200 petitions have within the last sixteen months been presented to the House of Commons and your Honourable Board, a number that implies something seriously wrong in the administration of the Medical department of your service, and claims redress at your hands, in virtue of your oath. I live in a town, and my patients all reside there. I pray you, therefore, to fix my salary at such a sum that it may be regarded as a criterion for other officers who may be similarly situated. I have the honour to be, &c.

The Poor-law Board. RICHARD GRIFFIN.

(Copy.)

12, Royal-terrace, Weymouth, 20th July, 1857.

SIR,—I am informed by Mr. Lithgow that he has offered himself as a candidate for the appointment of Medical officer to the Union House. Should the Board of Guardians elect him to that office I shall feel obliged by their allowing me to exchange the Weymouth for the Melcombe district, which I presume he would be required to resign. In most public institutions it is usual for one officer to be permitted to take the post of another who vacates for a better. I trust in this instance the Guardians will be kind enough not to depart from the rule, but allow Mr. Lithgow to have Dr. Boyd's appointment, and to give Mr. Lithgow's to me, an arrangement which would place Mr. Lithgow and myself each in a situation where he would receive far higher pay than at present in proportion to the duties to be performed. In the event of my being elected to the Melcombe district, that of Weymouth would be at the disposal of the Guardians. I should think an exchange would be sanctioned by the Poor-law Board without requiring the Guardians to be put to the expense and trouble of a fresh election.

I am, Sir, &c. RICHARD GRIFFIN.

The Clerk to the Board of Guardians, Weymouth Union.

12, Royal-terrace, Weymouth, 3rd August, 1857.

SIR,—I shall feel obliged by your considering this note as as a postscript to my letter of July 20th, and by your reading it with that to the Board of Guardians on Tuesday next, August 4th.

Should the Board not consent to my having the Melcombe district, then I trust they will at once proceed to take into their serious consideration my *repeated complaints* as to the inadequacy of my salary, and vote me such an addition to it as will make it commensurate with the duties I am required to perform. The payment I now receive, on an average of two years, is 1s. 4½d. per order, whilst the Melcombe Surgeon has 2s. 6½d., and the Wyke Surgeon, 16s. 3¼d.

I am, Sir, &c. RICHARD GRIFFIN.

The Clerk to the Board of Guardians, Weymouth.

PARLIAMENTARY INTELLIGENCE.

HOUSE OF COMMONS.

POOR LAW (IRELAND).

Mr. BRADY asked whether Medical Poor-law Officers were bound to attend on persons whose tickets of attendance had been suspended in consequence of their ineligibility to Poor-law relief from position and circumstances, but who afterwards got renewed tickets for attendance without alteration or diminution of their pecuniary circumstances. Also, whether in the event of a Poor-law Medical officer falling ill in the discharge of his duties, or otherwise, the guardians had power to stop from his salary the amount paid by them for his substitute.

Mr. H. HERBERT believed there was nothing to prevent persons from obtaining Medical relief under the circumstances in question. The matter might generally be left to the discretion and good feeling of the Dispensary Committees, but some instances of abuse undoubtedly existed which he should be glad to remedy if possible. In answer to the second question, it certainly appeared rather hard to stop from the salary of the Medical officer the amount paid by the guardians during his illness to his substitute. He did not feel qualified to declare the law on this subject, but any gentleman who felt aggrieved might refer the question to the Poor-law Commissioners.

CROWDED DWELLINGS PREVENTION BILL.

Mr. COWPER said he had come to the resolution to withdraw this Bill, feeling that in the last week of a protracted session the opponents of the measure had a power commensurate more with their pertinacity than with their numbers. The opposition in the present instance had this peculiarity, that it came mainly from hon. members who represented those parts of the metropolis in which evasions of the law were most frequent, and in which the greatest number of lodging houses were found, to the injury of health and the detriment of morality. Under these circumstances he begged to move that the order for going into committee upon the Bill be discharged.

Mr. AYRTON regretted that the right hon. gentleman had not done a graceful thing in a graceful manner, but had considered it necessary to make remarks as uncalled for as they were unfounded. The right hon. gentleman had no doubt withdrawn the Bill because he had discovered that it was entirely erroneous from beginning to end, that it would not carry out its professed object, and that it was not in the least degree necessary. The hon. and learned gentleman concluded by stating that he intended to give a notice of motion which he believed would go to the root of the evil.

The order was then discharged.

MEDICAL NEWS.

APOTHECARIES' HALL.—Names of gentlemen who passed their examination in the Science and Practice of Medicine, and received Certificates to Practise, on Thursday, August 13, 1857:—

COBBETT, ROBERT NEWBERRY.
HADLOW, HENRY, jun., Sandwich, Kent.
LITTLEWOOD, JOSEPH, Hampole, Doncaster.
SLY, WILLIAM, Wincanton.

Also, on the 20th,

BUCHANAN, ALBERT, Myddelton-square.
FURSE, ROBERT, Southmolton, Devon.
HOPKINS, EDWARD, Llanidlo.
MARRIOTT, CHARLES WILLIAM, Leamington.
MARTIN, JOHN, Great George-street, Liverpool.

DEATHS.

CAMPBELL.—On the 15th inst., at Portsmouth, John Campbell, Esq., M.D., Surgeon, R.N..

PAULSON.—August 13, at Mansfield, Notts, W. H. Paulson, Esq., aged 52, M.R.C.S.E., 1828: L.S.A., 1826.

THE MULBERRY-TREE AND THE SILKWORM.—From an interesting paper recently communicated to the Academy of Sciences by M. E. Guérin Méneville, it appears that the existence of an epidemic disease of the mulberry-tree, which has been denied, is now fully ascertained. M. Méneville states from personal observation that the disease exists in Switzerland, and in all the departments of France through which he has passed on his way from the Basses Alpes to Spain. It produces numerous red spots on the leaves, which soon shrivel up, and fall off early in June. This disease is not new, and single cases of it have been frequently observed; but this is the first time it has made its appearance under an epidemic form. It is most virulent in those districts where

the silkworm has suffered most, and there is every reason to believe that it is one of the principal causes of the disease of that insect. The latter is now called the *gattine* in France, but it had been remarked before in solitary cases; the silkworms attacked with consumption have long been called *luzettes* in France, because they have a shining appearance, and do not grow. In the south of France they are called *arpians* and *passis*.

ACADEMY OF MEDICINE.—The two new associates, chosen from among the most celebrated provincial Surgeons, are MM. Bonnet of Lyons, and Sédillot of Strasburg.

VITAL STATISTICS OF LONDON.

Week ending Saturday, August 22, 1857.

BIRTHS.

Births of Boys, 860; Girls, 832; Total, 1692.
Average of 10 corresponding weeks, 1847-56, 1460.

DEATHS.

	Males.	Females.	Total.
Deaths during the week	539	552	1091
Average of the ten years 1847-56	584	538	1122
Average corrected to increased population	...	..	..
Corrected average for corresponding week in ten years 1847-56	633·8	628·8	1262·6
Deaths of people above 90	...	...	5
Deaths in 13 General Hospitals	41	20	61

DEATHS IN SUB-DISTRICTS FROM EPIDEMICS.

	Population. 1851.	Measles.	Scarlatina	Hooping-Cough.	Diarrhœa.	Cholera.	Typhus.
West	376,427	1	5	6	42	5	8
North....	490,396	3	11	1	32	..	10
Central ..	393,256	5	6	7	25	..	6
East	485,522	3	12	15	45	3	8
South	616,635	1	6	6	71	4	9
Total..	2,362,236	13	40	35	215	12	41

DEATHS REGISTERED DURING THE WEEK.

Causes of Death.	In the Week ending Saturday, Aug. 22, 1857. Deaths of Persons. AT ALL AGES.	Under 20 Years of Age.	At 20 and under 40 Years of Age.	At 40 and under 60 Years of Age.	At 60 and under 80 Years of Age.	At 80 Years of Age and Upwards.	Averages of Temperature and Deaths in 10 Weeks.
Mean Temperature	Mean temp. 65°1						61°0
ALL CAUSES	1091	626	125	139	147	50	1262·6
SPECIFIED CAUSES	1087	626	125	139	147	50	1256·1
DISEASES:—							
1. Zymotic Class	404	332	16	22	25	9	566·9
2. Dropsy, Cancer, and others of uncertain seat	53	8	5	21	16	3	44·6
3. Tubercular Class	162	65	57	32	7	1	178 8
4. Of Brain, Nerves, etc. ..	83	37	8	9	24	5	102·9
5. Of Heart, etc.	28	3	3	11	9	2	32·1
6. Of Respiratory Organs ..	66	34	6	8	16	2	84·6
7. Of Digestive Organs ..	60	19	6	17	17	1	70·9
8. Of Kidneys, etc.	12	..	2	5	4	1	12·1
9. Of Uterus; viz. — Puerperal Disease, etc. ..	10	1	8	1	..	..	9·5
10. Of Joints, Bones; viz.— Rheumatism, etc. ..	12	4	3	3	2	..	6·4
11. Of Skin, etc.	2	1	..	1	..	..	2·3
12. Malformations	2	2	..	..	..	..	3·8
13. Debility from Premature Birth, etc.	34	34	..	..	..	..	29·
14. Atrophy	62	54	..	..	8	..	40·
15. Age	39	..	..	..	14	25	37·
16. Sudden	6	4	..	1	..	1	5·
17. Violence, Privation, etc...	52	28	11	8	5	..	28·
CAUSES NOT SPECIFIED.. ..	4	..	..	..	..	..	6·

BOOKS RECEIVED.

On Mineral Waters. By Dr. R. M. Glover. London. Renshaw. 1857.
First Annual Report upon the Sanitary Condition of the Strand District. By Conway Evans, M.B.
On Life Assurance. By Dr. Stephen H. Ward. London. Churchill. 1857.
Discussion i det Norsko Medicinske Selskal i Christiania angaaende Syphilisationen. Christiania. 1857.
Remarks read before a Sub-Committee appointed to consider the Question of Provident Dispensaries. By Dr. William Ogle. London. Phipps. 1857.

TO CORRESPONDENTS.

Varus.—The examination in Classics and Mathematics will be compulsory in the case of those who commence their studies after the period referred to, but the rule will not affect those whose studies have now commenced, or who are now serving an apprenticeship.

J. D. E. Brentford.—It has given us unmixed satisfaction to hear of the probability of Lord Robert Grosvenor's removal to the House of Lords; as in that new sphere his mischievous activity against the Profession will be less important than in the House of Commons. The quacks will lose a good friend, but legitimate Medicine will be a gainer.

A Student.—To obtain the degree of Doctor of Medicine in the University of Paris, you must obtain previously the degree of Bachelier-dès-Lettres, and attend the whole of the Medical Curriculum, which will occupy about three years. The degree is held in high estimation.

Mr. Brotherton.—An unsuccessful candidate for the licence at Apothecaries' Hall cannot present himself for re-examination under a period of six months, as the Act of Parliament is explicit upon that point; but one who is unsuccessful at the College of Surgeons is sent back to his studies for such a period as the Examiners may determine.

O.P.—Fergusson's Practical Surgery, and Druitt's Vade Mecum. A new edition of Cooper's Surgical Dictionary will shortly appear.

A Banker's Clerk.—The names affixed to the disgusting bills handed about in the streets are usually fictitious, in order to obviate legal consequences. The fellows who carry on the disreputable trade are, for the most part, Jews. They are not qualified Practitioners, and, indeed, are mere quacks, and of the vilest kind.

Mr. W. Moreton.—A Licentiate of the Faculty of Physicians and Surgeons of Glasgow is not legally qualified to practise in England.

Celsus.—The regulations as to the Preliminary Examination in Classics and Mathematics will not affect those who enter to their Medical studies in October next. They may pass the Latin examination in Celsus and Gregory as heretofore.

Mr. W. Adams writes us a letter repeating his claim to the originality of the instrument invented by him for the treatment of Varus, and asserts that the cure of that distortion has not even been attempted by the use of any instrument constructed upon the same principles as those which he has lately brought before the Profession.

Cobley.—The gentleman in question should now lose no time in putting his case in the hands of a solicitor.

R. J. B.—The regulations in question will not affect those who are now pursuing their studies.

M.A.B.—The evidence given before the House of Lords upon the Sale of Poisons is published in a blue book, which may be procured of any bookseller.

COMMUNICATIONS have been received from—
Mr. T. ASPRAY; Mr. FREDERIC ROBERTS, Staff-Surgeon; Mr. W. ADAMS; Mr. RICHARD GRIFFIN; VARUS; Mr. NORRIS; F. DAVEY; COBLEY; Dr. W. MACKENZIE; Mr. WORDSWORTH; Mr. W. MORETON; Mr. J. BOWRING; CELSUS; Mr. JOHNSON; R.J.B.; Dr. W. O. MARKHAM; M.A.B.; Mr. JOHN H. HOOPER; J. D. E. Brentford; A STUDENT; Mr. BROTHERTON; O.P.; A BANKER'S CLERK; Mr. J. YATES; Mr. HOLMAN; Mr. J. BAKER; Mr. E. RICHARDS; Mr. HOUGHTON; Dr. HOWDEN.

APPOINTMENTS FOR THE WEEK.

29. *Saturday (this day).*

Operations at St. Bartholomew's, 1½ p.m.; St. Thomas's, 1 p.m. King's, 2 p.m.; Charing Cross, 1 p.m.

31. *Monday.*

Operations at the Royal Free Hospital, 1 p.m.; Metropolitan Free Hospital, 2 p.m.; Orthopædic Hospital, 3 p.m.

1. *Tuesday (September).*

Operations at Guy's, 1 p.m.; Westminster, 2 p.m.

2. *Wednesday.*

Operations at University College Hospital, 2 p.m.; St. Mary's, 1 p.m. Orthopædic Hospital, 3 p.m.

3. *Thursday.*

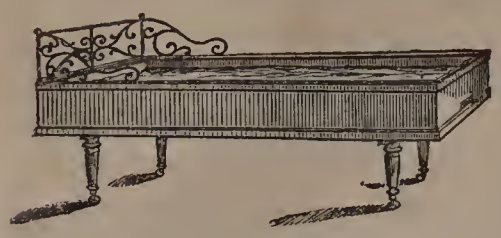
Operations at St. George's, 1 p.m.; Middlesex, 12½ p.m.; Central London Ophthalmic, 1 p.m.; London, 1½ p.m.

4. *Friday.*

Operations at the Moorfields Ophthalmic, 10 a.m.; Westminster Ophthalmic, 1½ p.m.

EXPECTED OPERATIONS.

KING'S COLLEGE.—Saturday (this day).—Mr. Fergusson: Excision of Elbow joint.
METROPOLITAN FREE HOSPITAL.—Monday.—Mr. Hutchinson: Plastic Operation for the relief of Prolapse of the Uterus.



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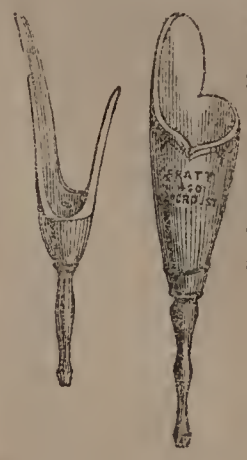

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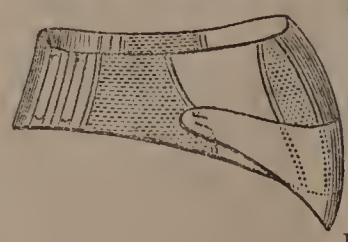

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A female to attend on Ladies.

Vichy Water.—W. Best, having made

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ORIGINAL LECTURES.

A COURSE OF LECTURES
ON THE
NATURE AND TREATMENT OF THE DISEASES OF THE EAR,
DELIVERED AT
St. Mary's Hospital Medical School.

By JOSEPH TOYNBEE, F.R.S.
Aural Surgeon to St. Mary's Hospital, Lecturer on Aural Surgery at St. Mary's Hospital Medical School, and
Consulting Aural Surgeon to the Asylum for the Deaf and Dumb.

(Reported by JAMES HINTON, Esq.)

LECTURE XVII.

EUSTACHIAN TUBE—(*Continued*).

Treatment of Obstruction of the Faucial Orifice of the Eustachian Tube by thickened Mucous Membrane.

CASES.

Obstruction for six weeks of the left tube from relaxed condition of the mucous membrane; constant beating sound.—J. R. H., Esq., a Surgeon, aged 48, consulted me on December 15, 1853. The *history* was that about six weeks previously he found himself deaf in the left ear; this deafness was unaccompanied by pain, but there was a constant feeling of beating in the ear, and a weight on that side of the head, which caused extreme discomfort. He stated himself to be subject to a relaxed throat. Upon *examination*, the mucous membrane of the fauces was observed to be relaxed, though not thicker than natural; the meatus externus of the *left ear* was dry and smooth, and did not contain any cerumen: the membrana tympani was very concave, and somewhat opaque. The *processus brevis* stood out very prominently, but the manubrium was so much drawn inwards that it could scarcely be seen. Upon using the otoscope the Eustachian tube was found to be impervious. The watch was heard only when in contact with the ear; the right ear was perfectly natural.

Treatment.—A whisky gargle was ordered, and a mustard plaster to be placed on the region of the fauces; the outside of the throat to be rubbed with a coarse towel dipped in cold water, simple food, as much rest, and as little "night work" as possible.

December 24th.—A crack took place in the ear, after which the hearing was perfect for some minutes, after which it again became gradually dull. The treatment was persevered with, and on the 7th of January, 1854, the gentleman wrote, "I am quite well, the air passes into the ear perfectly well." All the unpleasant symptoms had subsided.

Obstruction in each tube for ten days after an attack of bronchitis.—S. S. Esq, aged 51, an architect, was brought to me on June 24th, 1853. *History.*—He has had a bad cough and bronchial affection for a month, which came on after having been considerably overworked. Ten days since deafness came on slowly in both ears, and has remained till now, so that he requires to be spoken to in an elevated tone within a yard. He hears much better in the morning when in the recumbent position in bed. Has frequently tested his hearing by means of his watch, and the result is that when lying down he can hear it at a distance of two feet with either ear; after being in the erect posture for a minute or two the deafness returns, and he can hear the watch only at two inches from the ears. He has now and then had a slight crack in each ear, after which the hearing has been somewhat improved. On *examination*, the pulse was weak and slow, the face was pale and flabby, the mucous membrane of the fauces was seen to be relaxed, and there were enlarged streaky vessels ramifying in it. *Right ear.*—The watch was heard only when in contact with the ear; the surface of the membrana tympani was dull, it had a dark leaden hue, and it was very much more concave than natural; there were two irregular shaped bright spots instead of the single one; the long process of the incus was seen through the membrana tympani, and appeared to be in contact with its inner surface: the Eustachian tube was impervious. *Left ear.*—In the same state as the right ear; hearing distance a quarter of an inch.

The *treatment* consisted in the administration of citrate of iron, and afterwards of decoction of bark and sulphuric acid; the use of a tannin gargle, and gentle counter-irritation externally. He was also advised to sleep in the country, to work as little as possible, and to live generously. On July 2 there was a slight improvement, but there was no free passage for the air through the tubes. On July 7 there was a sudden and great improvement in the right ear after blowing the nose. Hearing distance six inches in the right ear, and a quarter of an inch in the left. Cracks now occurred in both ears from time to time; they were followed by a great amelioration in the hearing, and at the end of July he had perfectly recovered.

Obstruction at the faucial orifice from relaxed mucous membrane for two months after influenza.—Miss T., aged 16, was brought to me on June 7, 1853. She was pale, the pulse was weak, and she was somewhat out of health, having had an attack of influenza during two months. Catamenia irregular. *History.*—When a child was subject to dullness of hearing during a cold, but recovered as soon as the cold passed away. During the recent attack of influenza has been so dull of hearing as to require to be spoken to distinctly within the distance of a yard: general conversation is not heard. Sometimes during an entire day hears rather better. Complains of a ticking noise in the ears. Results of *examination, right ear*:—The watch heard only on pressure; membrana tympani, surface dull, concave; Eustachian tube impervious. *Left ear* in the same state as the right. The mucous membrane of the fauces was relaxed.

Treatment.—Considering that the relaxed condition of the faucial mucous membrane was dependent upon the state of the health, steel was administered, and plans for invigorating the system were recommended; gentle counter-irritation over the region of the fauces was also enjoined.

July 13th.—Has had a "rumbling" sound in the ears, since which she has heard better. Hearing distance two inches.

July 20th.—Well. Eustachian tubes pervious.

Several additional cases might be related, but the three I have mentioned will be sufficient to illustrate the nature of the affection.

2. *Obstruction of the Eustachian tube at the tympanic orifice from thickened mucous membrane.*—Inasmuch as one of the most common affections of the ear is inflammation of the tympanic mucous membrane, it will be readily conceived that obstruction of the tympanic orifice of the Eustachian tube is likely to take place from the same causes. It is well known that the osseous portion of the Eustachian tube, which is about the size of an ordinary probe, is lined by an extremely thin mucous membrane; the membrane, like that which covers the osseous walls of the tympanum, adheres firmly to the surface of the bone, and appears to act in the twofold capacity of a periosteum and mucous membrane; one of the reasons for its extreme tenuity being the fact that the bony part of the Eustachian tube also serves as a cavity for resonance. The whole of the mucous membrane of the Eustachian tube, excepting at the two extremities, is so surrounded by muscles and bone that it is but little liable to become the seat of disease. In making dissections I have rarely found that it has undergone any morbid change; indeed in some cases of ulceration of the faucial mucous membrane, in scarlet fever accompanied by ulceration of the mucous membrane of the tympanum, I have found the membrane lining the central part of the Eustachian tube free from disease. It would thus appear that the commonly received opinion of the extension of the disease by direct continuity from the fauces to the tympanum is not always correct; from what is observed in other cases there is no difficulty in supposing that the affections of the two parts may take place at the same time without being in the relation of cause and effect. It cannot be doubted that it is very fortunate that the mucous membrane of the central part of the tube is so little liable to become thickened as there would of course be considerable difficulty in treating it.

The mucous membrane covering the bone which forms the tympanic aperture of the tube is, on the contrary, liable to congestion and hypertrophy, being, like the mucous membrane of the tympanum, exposed to the influence of the cold air entering the meatus externus. I have already pointed out the symptoms of hypertrophy of the tympanic mucous membrane; they are usually present in the cases under consideration, but in addition to them there is a great concavity of the membrana tympani, usually loud noises in the ears, and upon examina-

tion an impervious state of the Eustachian tube. The *history* of the two cases differs in the fact, that in cases of obstructed Eustachian tube, the deafness usually comes on rapidly, often disappears, and as rapidly re-appears; whereas in the cases of deafness arising from disease in the mucous membrane the progress is usually slow and regular. It must also be remembered that in cases of obstruction of the Eustachian tube at the tympanic orifice, there is usually a history of previous attacks of inflammation in the tympanic mucous membrane, which is not generally the case in instances of obstruction at the faucial orifice; the membrana tympani also presents appearances indicative of inflammation having occurred in the tympanic cavity. The most simple cases of obstruction of the Eustachian tube at the tympanic orifice are those following an ordinary cold, in which a sense of fulness is felt in the ears, often attended with noises, and accompanied by dulness of hearing. These symptoms last a few days, and then they usually disappear with a sensation of something bursting in the ear.

In the *treatment* of these cases all those measures should be resorted to which have been described as serviceable in hypertrophy of the mucous membrane of the tympanum. In addition, the operation of puncturing the membrana tympani is sometimes advisable.

ON THE OPERATION OF PUNCTURING THE MEMBRANA TYMPANI.

Since Sir Astley Cooper obtained a medal from the Royal Society, on account of the success which, in a few cases, followed the operation of puncturing the membrana tympani, this operation has been performed with great frequency, and in cases of deafness arising from every possible cause. There can be no doubt that in certain cases it may be of considerable service, but it is an operation which is rarely required, and if not judiciously performed it is liable to produce the most injurious results. In the cases in which Sir Astley Cooper performed this operation successfully, there was simple obstruction of the Eustachian tube, and there is little doubt that the affection would have yielded to simple measures, having for their object the removal of the obstruction, and that the cure, instead of being temporary, would have been permanent. There is no doubt that in the great majority of cases in which Sir Astley Cooper punctured the membrana tympani not the slightest benefit occurred, because the deafness was dependent upon other causes than obstruction of the Eustachian tube; in some cases of deafness from debility of the auditory nerve the shock of the operation greatly aggravated the symptoms. In what cases should the operation be performed? It will be observed that I have not recommended it in cases of obstruction of the Eustachian tube at the faucial orifice, because I have always been able to remove the obstruction. Should the faucial orifice be permanently closed by adhesion of its walls, there is no doubt but that it should be performed; such a case has not, however, hitherto occurred to me. The operation is called for in cases of stricture of the osseous portions of the tube, in cases of obstruction by fibrinous effusion, and in those cases of thickened mucous membrane of the tympanic orifice which will not yield to other treatment. Great and immediate improvement frequently follows the operation, but there is usually much difficulty in keeping the aperture open, so that its value is much diminished. The usual instrument for performing the operation is the sharp triangular end of a probe, and in cases where only a temporary effect is required this is sufficient. Fabrizzi invented an instrument for drilling out a circular portion of the membrane, but the extreme sensitiveness of the outer surface of the membrana tympani renders it difficult of application. It consists of a silver tube about four inches long, one end of which, about a line in diameter, is tipped with steel, and made to cut; the opposite end of the tube is made to screw on the outer part of a trocar, near its handle; the trocar, consisting of a silver rod, has at its end a fine wire, shaped like a cork-screw. When used the trocar is passed through the canula, and the spiral wire projects beyond it, the projecting point of this wire is made to pass through the membrana tympani, and it is then turned round, so as to make it enter the tympanic cavity. When this has been accomplished, and a firm hold of the membrana tympani is secured, the canula is to be slightly unscrewed; by this action its cutting extremity is pressed through the substance of the membrana tympani, of which it removes a circular portion. This instrument can be used in cases where the sensibility of the membrana tympani has been diminished by disease.

The usual mode of making an orifice in the membrana tympani is to puncture it with the triangular shaped point of an ordinary probe. The part of the membrane best adapted for the puncture is between the handle of the malleus and the posterior margin.

The plan I have adopted for keeping open an orifice in the membrana tympani, and the particulars of a case in which it was practised, will be found below; it consists in making a triangular flap by means of a very small scalpel made for the purpose, the blade of which is not more than two lines in breadth.

CASES.

Obstruction by thickened mucous membrane at the tympanic orifice.—Miss K. J., aged 10, was brought to me on July 14, 1853. *History.*—Between five and six years ago, after a cold, suffered from an attack of earache, which was followed by dulness of hearing, so that she has been obliged to listen in order to hear conversation. During attacks of cold, she has been so much worse as to require to be spoken to distinctly within the distance of a yard or two; is now subject to occasional attacks of earache, and has had a slight discharge from the right ear. Upon *examination* of the right ear, the dermoid layer of the membrana tympani was white and thick, and it was covered with a small quantity of discharge; the membrane was more concave than natural; the Eustachian tube was obstructed. *Left ear.*—The surface of the meatus was covered by cerumen, having a natural appearance; the membrana tympani was white and concave; the Eustachian tube was obstructed; the mucous membrane of the fauces was in a natural state. *Treatment.*—Leeches were applied below each ear twice a week; these were followed by blisters; the 1-30th of a grain of bichloride of mercury was given twice daily. This treatment was continued for six weeks; at first there was no improvement, after three weeks a slight diminution of the deafness took place, and on the 1st of September the hearing was quite restored, and the Eustachian tubes were pervious.

Obstruction at the tympanic orifice after influenza; polypus in one ear, a collection of cerumen in the other; great improvement.—Master J. P. M., aged 14, in good health, was brought from Lincolnshire July 27, 1853. *History.*—Four years since he had an attack of influenza, which was followed by so considerable a hardness of hearing, that he has required persons to speak to him in a loud voice. During a cold the deafness is much increased; at times, after a feeling of "cracking" in the ear, has heard much better. This crack took place on one occasion in the right ear after bathing, and it was followed by perfect hearing for a few hours. There has been a discharge of blood from the right ear for several months, and this ear has suffered from attacks of earache. *Previous treatment.*—Glycerine has been dropped into both ears without any benefit; slight improvement followed the use of a blister behind each ear; tonics have been administered. *Result of examination—Right ear.*—Hearing distance half an inch; the meatus contained a discharge; at the inner part of the meatus, and concealing the membrana tympani, was a red, globular polypus; Eustachian tube obstructed. *Left ear.*—Hearing distance half an inch; the meatus contained a collection of cerumen; when it was removed the membrana tympani was seen to be very concave and white; Eustachian tube obstructed.

Treatment.—The polypus was removed from the right ear by means of the lever-ring forceps; vesication was kept up over the mastoid processes; small doses of the iodide of potassium were administered. In the course of three months the hearing returned, and he remains well.

Obstruction at the tympanic orifice of the tube; polypus in the right ear; cured.—Miss M., aged 14, saw me on the 14th of February, 1854. Her health was good, but she complained of headache. *History.*—During the last seven years has been at times dull of hearing, and has had attacks of earache. During a cold is much worse; has not had any discharge. At times, after a feeling as if something had burst in the right ear, has heard quite well for a short time. She now requires to be spoken to loud close to the right ear; the left ear is useless. Upon *examination*, the hearing distance of the *right ear* was found to be two inches, the membrana tympani was concave and white, the Eustachian tube obstructed. With the *left ear* the crack of the nails was heard, the membrana tympani was thick, the Eustachian tube obstructed.

Treatment.—Brown's vesicating paper was ordered to be applied behind both ears every night, and three grains of hydrargyrum c. cretâ were ordered to be given every night.

March 7.—The same: has not been pursuing the treatment with regularity: to take an emetic once a-week, and the thirtieth of a grain of the bichloride of mercury twice daily; the vesicating paper to be continued.

April 6.—Has heard well for a week; to-day hears better than on March 7th. A small vascular polypus is seen in the right meatus near the membrana tympani.

May 11.—The right ear has greatly improved, hearing distance nine inches. Left ear, watch heard on pressure.

June 14.—Right ear cured; the polypus has disappeared.

Case of obstruction of the tympanic orifice of the tube; temporary relief by puncturing the membrana tympani; cured by removing the obstruction.—J. R., Esq., aged 53, strong, and in good health, was sent to me by Mr. Cock, on May 7, 1853. *History.*—When a boy was deaf, and he was taken to Sir Astley Cooper, who punctured the drum of each ear; the operation was followed by complete relief until eight years ago, when, after a violent cold, deafness gradually came on in both ears. This has remained until now, with the exception of an improvement for a day or two, which has at times taken place after violent sneezing. At the present time he requires to be spoken to loud, within a foot of his head; he complains of a feeling of constriction of the head, and pressure on the top of it. Result of *examination.—Right ear.* The crack of the nails only is heard; the membrana tympani very opaque, uneven, and concave; Eustachian tube obstructed. *Left ear.* The watch heard on pressure; the membrana tympani and Eustachian tube in the same state as in the right ear.

There was no doubt in my mind that the cause of the deafness was a thickened state of the mucous membrane at the tympanic orifice of the tube, and I prescribed the application of leeches below the ear, to be followed by blisters, while small doses of mercury were to be administered. But I was implored by the patient, if possible, to render him some immediate relief, as he was candidate for a public appointment; and, although my assurance that he would recover might have a favourable influence upon the committee, before whom he was to appear the following day, still he greatly feared that, if he did not hear what was said, he should be rejected. I therefore endeavoured to pass air into the tympanum through the catheter, but I was unsuccessful. I then punctured each membrana tympani with an ordinary probe; on passing through, the membrane had a soft flaccid feel. The result was the instantaneous return of his hearing power; the feeling of weight on the head wholly disappeared; to use his own words, he "felt free again." The hearing distance of each ear was six inches.

May 30.—After the operation continued to hear well until a few days since, when the deafness again came on slowly; he is now nearly as deaf as on the 14th. The orifice in each membrana tympani had closed. As he was unable to wait until the remedies for opening the tube could be adopted, I made a triangular flap, about two lines long, and a line broad below in each membrane, by means of a sealpel, the blade of which was about two lines in breadth; the apex of the flap was above, and it was turned down. The result was as favourable and as immediate as in the previous operation; and, as it was considered probable that the apertures would close, active treatment for the purpose of opening the tube was at once carried out. The result was, that in a fortnight the air passed freely through the Eustachian tube, the patient heard well; but the orifice in each membrana tympani closed.

I shall advert to closure of the tympanic orifice of the Eustachian tube by the effusion of fibrine when speaking of cases of effusion of fibrine into the tympanic cavity.

3. *Obstruction of the middle part of the Eustachian tube, by a collection of mucus, by a stricture of its cartilaginous or osseous portions, or by bands of adhesion connecting the walls.*—In the tabular view, giving the result of 1523 dissections, it will have been observed that in 13 instances the Eustachian tube contained mucus. I am, however, disposed to believe, that a collection of mucus rarely offers insuperable resistance to the action of the muscles of the tube, to the pressure of the air in the fauces during the act of deglutition, an attempt at a forcible respiration with closed nostrils, etc. It is nevertheless possible, that in some of the cases where the tympanic orifice of the tube is closed by thick mucous membrane there may be also an accumulation of mucus. But as the presence of mucus would not make any alteration requisite in the treatment, I do not think it necessary to dilate upon the subject.

Stricture of the osseous portion of the Eustachian tube is very rare. Only one case has fallen under my observation, but as I had the opportunity of seeing the patient during life, and afterwards of making a dissection of the ear, it is of sufficient interest to be detailed at length.

Stricture of the osseous portion of the Eustachian tube; dissection.—C. J., aged 45, was visited by me in the month of November, 1849. At the time I saw him he was dying from tubercular disease; I was, therefore, precluded from making so minute an examination as was desirable. The history of the origin and progress of the deafness, as nearly as could be ascertained, was as follows:—About twenty years ago the patient suffered from a violent inflammation in the right ear, followed by a discharge from the external meatus, which had continued almost without intermission up to the time he was seen by me. For a considerable period this ear had been unable to distinguish sounds. The left ear had been gradually growing less and less sensitive to sonorous vibrations during the preceding six or seven years. No pain had been felt in it, however, and there had been no discharge from the external meatus.

Upon inspection by means of a speculum and lamp, the membrana tympani of the *right ear* was observed to be absent, while the mucous membrane lining the tympanic cavity was very thick, and covered by a considerable quantity of purulent matter. In the *left ear* the lining membrane of the external ear was slightly reddened, and the membrana tympani was as white as writing paper; the handle of the malleus, usually so distinctly seen, was not distinguished from the surrounding membrane. Towards its centre, the surface of the membrana tympani had lost the natural shining appearance, but a small portion of the surface on each side of the handle of the malleus, although perfectly white, was so smooth as to reflect the light thrown upon it by the lamp. As the patient was in a state of great debility, the otoscope was not applied to either ear to ascertain the condition of the Eustachian tubes. The patient died a few days after the examination.

Post-mortem Inspection.—Right Ear.—The mucous membrane lining the tympanic cavity was thick and ulcerated in parts, and the bone forming the upper wall of the cavity, with which the ulcerated membrane was in contact, was carious. The Eustachian tube was healthy. *Left Ear.*—The central portion of the membrana tympani was found to be white and thick, but those parts of it which lie anteriorly and posteriorly to the handle of the malleus were soft and attenuated, and the white appearance was due to the presence of mucus in the tympanic cavity immediately in contact with the inner surface of the membrana tympani. So softened was this portion of the membrana tympani that, on applying very slight pressure, the fibres of which it was composed gave way, and three small orifices were produced. The cavity of the tympanum and the mastoid cells were filled with white thick mucus, and no air was discoverable. The mucous membrane lining the cavity was also thicker than natural. *The Eustachian tube.*—The internal portion, for the length of half an inch, was healthy; but, at about that distance from the cavity of the tympanum, there was a sudden constriction, and for the length of about a line and a-half the tube was so contracted, that even when its anterior wall was removed, it was with difficulty that an ordinary-sized bristle could be introduced into the opening. This stricture resulted from the external and internal walls of the tube pressing against each other, the small space still permeable being above the upper part. The more remote cause of the stricture, however, would appear to have been an enlargement of portions of the bone constituting the external and internal osseous walls of the tube. The external osseous wall was at this part twice its natural thickness, and somewhat rough; while the internal wall was forced outwards by the dilatation of the carotid canal, which thus pressing upon the cartilaginous portion of the Eustachian tube with which it was in contact produced a flattening of the natural concavity of the internal wall. The mucous membrane lining the Eustachian tube was in a natural state.

Although three dissections are recorded of adhesion between the walls of the tube by means of membranous bands, I have not hitherto met with a case during life. In such a one the treatment would consist in puncturing the membrana tympani, and establishing an orifice in it.

LECTURES
ON
GENERAL NATURAL HISTORY.

By THOMAS H. HUXLEY, F.R.S.

Lecturer on General Natural History at the Government School of Mines, and Fullerian Professor of Physiology, Royal Institution.

LECTURE XII.

Concluded from page 189.

The *Cirripedia*.—It can hardly be a matter of reproach to the elder naturalists if they failed to discover the affinity connecting the sedentary "Acorn-shells" of a rocky coast with the active shore-crab which runs amongst them; or if they classed the Barnacles with *Mollusca*, instead of admitting them to that place amidst the *Crustacea* which is now assigned to them by every naturalist of competent judgment. Nothing, in fact, at first sight, is less suggestive of a Crustacean than the *Balanus* or the *Lepas;* the former firmly fixed by the base of

Fig. 1.

A. Diagrammatic section of *Balanus*. B. Of *Lepas*. *a*. is placed in the cavity of the sac, and lies over the labrum. *b*. Prosoma. *c*. Carina. *c. l*. Carino-lateral compartment. *l*. Lateral compartment. *r*. Rostrum *s*. Scutum. *t*. Tergum. *f*. Penis. *g*. Gut-formed gland. *h*. Duct connecting this with *k*, cement duct and glands. *l*. Antennæ. *i*. Peduncular or ovarian tubules. *m*. Ovigerous frænum.

its multivalve conical shell, the latter by its fleshy and contractile peduncle; the only sign of life in either being the alternate protrusion and retraction from the valvular opening of the animal's case of a bundle of curved filamentous cirri, which sweep with a brushing motion through the water, and scoop the floating nutritive matters towards the mouth.

The valves or doors through which the cirri make their egress are strengthened, in both *Balanus* and *Lepas*, by four calcified pieces, two on each side; those of each half being united together by an oblique suture, or by a regular articulation; while the two pieces of opposite sides are connected only along one margin, either immediately or by means of an intermediate piece.

The upper or distal pieces are termed the "*terga*," (a) the lower or proximal the "*scuta*," the intermediate piece is the "*carina*." In *Lepas* there are no other hard external pieces, but in *Balanus*, the conical shell, into which the valves can be more or less completely retracted, is composed of six pieces or compartments. Of these, one is situated on the same side as the opening between the valves, and another at the precisely opposite point, or on the same side as the line of union of the valves. The latter is the homologue of the intermediate piece or carina, in *Lepas;*" the former in *Balanus* consists of three pieces united together, the median "rostrum" and the "rostro-lateral" compartments. On each side of the carina is a compartment termed "carino-lateral," and between them and the complex rostrum lies a "lateral" compartment.

If the shell consisted of its eight typical pieces, it would be found that each presented a triangular free middle portion and two lateral wings. The former is always termed the "paries," but the latter receive different names according as they overlap or are overlapped by others. In the former case they are termed "radii," in the latter "alæ." Thus, typically, the carinal and the rostral compartments are overlapped on both sides, and their wings are consequently both "alæ," the lateral and carino-lateral compartments are overlapped on one side, and overlap on the other, hence they have an "ala" on one side, a "radius" on the other; while the rostro-lateral compartment overlaps on both sides, and hence its wings are both "radii." In our *Balanus*, however, the rostrum and rostro-lateral compartments, being replaced by a single compartment formed by their confluence, this piece has radii on both sides.

Different as is the appearance of *Lepas* from that of *Balanus*, we shall find that in essential structure they closely resemble one another. Thus, to commence with *Lepas*. On cutting away the scutum and tergum of one side (fig. 1), the hinder part of the body of the animal is seen within the sac of the "capitulum" formed by the valves of the shell, to which it is attached only on the rostral side and inferiorly by a comparatively narrow isthmus. Immediately behind this point the body widens, to constitute what Mr. Darwin terms the "prosoma," but the thoracic segments which succeed the prosoma, gradually taper posteriorly. Six pairs of appendages (*a*) are attached to the thorax, each limb consisting of a basal joint (protopodite), terminated by two long multi-articulate cirri, the representatives of the endopodite and exopodite; and a rudimentary abdominal segment, terminated by two short caudal appendages, succeeds the thorax, and is produced in a long setose filamentous penis. (*f*) Filamentous appendages depend from some of the thoracic somites, and projecting from the inner wall of the sac on each side is a triangular process, the "ovigerous frænum." (*m*)

The mouth is situated at the posterior part of a protuberant mass, seated on the rostral face of the prosoma, and principally composed of a large, bullate, labrum, behind which is a pair of mandibles with large and setose palps, and two pairs of maxillæ. Anteriorly the prosoma passes by a narrow isthmus into the rostral part of the peduncle, into which it, as it were, expands, while the posterior margins of the peduncle become continuous with the walls of the sac.

The extremity of the peduncle is fixed by a peculiar cementing substance to the body to which the *Lepas* adheres, but if it be carefully detached there will be found connected with the rostral portion of the surface a pair of very minute singular-looking organs, consisting of two proximal joints, succeeded by an articulation which is dilated into a sucker, and terminated by an elongated setose joint. These are the remains of the antennæ.

From what has been said, it follows that the fixed end of the pedunele is, in fact, the anterior extremity of the body of the *Lepas*, and that a Barnacle is, in reality, a Crustacean fixed by its head, and kicking the food into its mouth with its legs. And if we take the facts furnished by anatomy, it would seem that, as Mr. Darwin puts it, all that part of a *Lepas* which is visible in the quiescent state (that is to say, the peduncle and the capitulum) is a development only from some somite or somites anterior to the fourth or mandibular. In speaking of the development of the *Cirripedia*, however, I shall have to adduce reasons in favour of modifying this view to a certain extent.

Strange as is the metamorphosis undergone by the Crustacean type in *Lepas*, it is not altogether without analogies in other *Crustacea*. Mr. Darwin has drawn attention to the parallelism between the enormously developed antennary somite of *Lucifer* and the peduncle of *Lepas*. Perhaps a closer resemblance might be traced between the latter and the "beak"

(a) I have adopted the terms proposed by my friend Mr. Darwin, in his very admirable "Monograph of the Cirripedia," published by the Ray Society, to which, and to its author, I would here, once for all, express my obligations. It is one of the most beautiful and complete anatomical and zoological monographs which has appeared in our time, and is the more remarkable as proceeding from a philosopher highly distinguished in quite different branches of science, and not an anatomist *ex professo*.

of *Daphnia* or *Lynceus;* but I shall recur to this point in describing the metamorphoses of the Cirripedes.

The mouth in *Lepas* looks towards the posterior extremity of the body, and leads into a tubular œsophagus, which passes forwards, and opens by a wide superior extremity into the globular stomach. From this point the alimentary canal bends back upon itself, and gradually narrows into the intestine, which terminates in the anus, situated at the extremity of the abdomen, on the tergal side of the penis. Two considerable branchial cæca, probably hepatic, proceed as diverticula from the stomach, corresponding very closely in position with those of *Daphnia*. No heart or other circulating organs are known to exist, and it may be doubted if the ovigerous frœna of *Lepas* exert, as they have been supposed to do, a branchial function.

The nervous system consists of a pair of cerebral ganglia situated in front of the œsophagus, and connected by long commissures with the anterior of five pairs of thoracic ganglia, whence nerves are given off to the limbs. In the middle line the cerebral ganglion gives off two slender nerves, which run parallel with one another in front of the stomach and enlarge into two ganglia, whence they are continued to a double mass of pigment, representing the eyes. From the outer angles of the cerebral ganglion arise the large nerves which proceed into the peduncle and supply the sac. These appear to correspond with the antennary and frontal nerves of other *Crustacea*, and Mr. Darwin describes an extensive system of splanchnic nerves. The same observer has described two kinds of sac-like organs, the one situated in the second pair of maxillæ, the other on the sides of the thorax at the base of the first pair of cirri; to the former he ascribes the function of olfactory, to the latter, of acoustic organs. While bearing testimony to the faithfulness with which Mr. Darwin has described the general structure of these organs (at least in *Conchoderma virgata*, in which I have had the opportunity of carefully examining them), I must confess I do not feel quite satisfied as to their function.

Lepas, like the majority of the *Cirripedia*, is hermaphrodite. The vesiculæ seminales are readily seen in fresh specimens, as white cords distended with spermatozoa, which run from the canal of the penis, into which they open, forwards on each side of the body to the prosoma, where they end in dilated extremities, which are connected with a multitude of ramified cæca forming the proper testis.

Mr. Darwin describes a "gut-formed gland" situated upon each side of the stomach, as the "true ovarium;" slender ducts pass from these down into the pedunele, and then become connected with many ramified cæcal tubules, which in the adult Cirripede fill the greater part of its substance; the ducts also unite with the peculiar organs called "cement ducts," or with the "cement glands" when these exist, which secrete and pour out at the extremity of the peduncle, or through the antennæ, the substance whereby the peduncle is cemented down. Mr. Darwin conceives that the cement apparatus is a peculiarly modified part of the ovary, and he considers that the ova originate in the "true ovaria," and pass down their ducts into the ramified cœca of the peduncle.

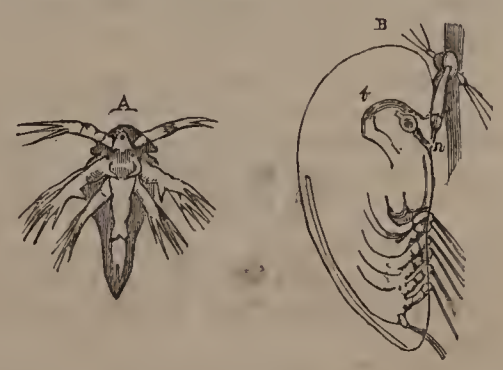
Now, the author of the "Monograph" appears to me to prove that (at any rate in such species as *Conchoderma aurita*), the cement gland and its duct are continuous with the ramified peduncular tubes, and since he brings forward equally strong evidence to show that the cement ducts are in the larva continuous with the "gut-shaped glands" of the prosoma, it must also be admitted that the cement ducts, peduncular tubules, and "gut-shaped glands," are modifications of different parts of a continuous organ. Nor have I any objections to urge against this doctrine; my own dissections of *Lepas*, while they have not enabled me absolutely to trace these parts with one another, rather favouring the conclusion that they are thus connected. But with respect to the functions of the gut-formed bodies and the peduncular tubules, I have clearly convinced myself that it is the latter which are the true ovaria—the ova being entirely developed in them, and not passing into them from any other organ.

The "gut-formed glands" in *Lepas* are thick-walled slightly lobulated tubes, bent upon themselves, and composed of a structureless membrane provided with a very thick coating, which appeared structureless, or at most slightly granular, when quite unaltered; clear rounded vacuales are however readily formed in it and the substance in their vicinity becomes granular, by the action of water. If the contents be squeezed out, a corresponding, but more marked change takes place; numerous clear vesicles are developed, and the surrounding substance becomes dark and granular, until at length they put on the appearance of a mass of clear cells with dark granular walls. I could never find anything resembling a true ovum, however, in these glands, and I am inclined to think that these are accessory glands, analogous in function to those which secrete the walls of the ovisac in the *Copepoda*.

The mode of exit of the ova from the ovary is not certainly known (b), nor is the place of their impregnation ascertained, but they are eventually found cemented together by chitin into large lamellæ, which adhere to the ovigerous frœna, and ordinarily at once strike the eye when the capitulum of a cirripede is opened.

The embryo attains to its earliest larval condition within the egg; and if a series of the fresh ovigerous lamellæ be taken and pulled to pieces with needles in a watch-glass full of sea-water, one is pretty sure to be found whence a number of active little animalcules are set free. Each presents a somewhat triangular body, produced in the middle line posteriorly and at its anterior lateral angles. The mouth is situated

Fig. 2.



A. Larva of *Balanus balanoides* on leaving the egg (after Spence-Bate). B. Pupa of *Lepas Australis*. *n*. Antennary apodemes. *t*. Gut-formed gland, with cement duct running to the antenna.

on a proboscidiform projection placed nearly in the centre of the body, and in the midst of three pairs of natatory limbs. In front of it, either in this stage or after one or two moultings, are seen two filaments which apparently represent the antennules, the antennæ being as yet enclosed within the antero-lateral angles of the carapace. A single eye-spot is situated in front of the base of the antennules. No gnathites are as yet developed, the locomotive limbs being the rudiments of the anterior thoracic appendages. After moulting several times the larva assumes a new form, passing into its second stage (c). The carapace is now oval and compressed, so as more nearly to resemble that of a *Daphnia* or *Cypris*. There are two eyes; the three pairs of limbs have altered in form, and are directed backwards parallel with one another; the mouth is quite anterior to them, and a large pair of prehensile antennæ, like those in the third stage, serve to attach the animal to submerged bodies.

In the third stage the larva is, as Mr. Darwin states, "much compressed, nearly of the shape of a *Cypris* or mussel-shell, with the anterior end the thickest, the sternal surface nearly or quite straight, and the dorsal arched. Almost the whole of what is externally visible consists of the carapace; for the thorax and limbs are hidden and enclosed by its backward prolongation; and even at the anterior end of the animal the narrow sternal surface can be drawn up, so as to be likewise enclosed." The larva in this stage is provided with two large compound lateral eyes. The oral tubercle has developed all the masticatory organs of a Cirripede, but these are covered by an imperforate integument, so that this "locomotive pupa," as Mr. Darwin terms it, is unable to feed. There are six pairs of legs, and the thorax ends in an abdomen, consisting of three somites terminated by two caudal appen-

(b) It is difficult to resist the force of the evidence by which Mr. Darwin endeavours to show that the ova pass by the circulating channels into the corium of the sac, becoming thrown off in a sheet at the next exuviation; but until absolute demonstration of the fact is obtained, I hesitate to admit the occurrence of so exceptional a process.

(c) New observations are greatly needed upon the larvæ in this second stage, which have only been observed once.

dages. There is no penis. The most remarkable structures in the pupa, however, are the "gut-formed glands," which are already well developed, and from which the cement ducts can be traced to the disks of the antennæ, on whose face they open. The pupa, after swimming about for awhile, at length selects its permanent resting-place, to which it adheres at first only by the action of the suctorial disks upon its antennæ. The temporary attachment, however, is speedily converted into a persistent one, the cement pouring out from its excretory apertures on the antennæ, and firmly glueing them down to the surface on which they rest.

Coincidently with these changes, several other important alterations take place during the passage of the locomotive pupa into the fixed young Cirripede. The compound eyes are moulted, and with them the antennary apodemes furnished by the integument of the deep fold which separates that part of the body of the pupa which corresponds with the beak of a *Daphnia* or a *Limnetis* from the prosoma. The fold is thus enabled to straighten itself, and, as a consequence, the carapace of the cirripede, instead of remaining more or less parallel with the surface of attachment, becomes perpendicular to it. Again, in the pupa the axis of the carapace and that of the body are identical in direction; but during the last moult the chamber of the carapace extends forwards far more on the tergal than on the sternal side, separating the dorsal part of the prosoma from the "beak," with which it was at first continuous, and then allowing the body of the Cirripede to take its final position, which is nearly transverse to the axis of the carapace.

The terga and scuta, etc., now appear as horny thickenings, and afterwards as calcifications in the wall of the capitulum. The frœna and the penis make their appearance, and the genitalia become developed in the prosoma and in the peduncle, which is produced by the gradual elongation of the "beak" of the pupa.

With the assumption of its perfect form, the Cirripede ceases to moult its carapace, ecdysis being hereafter confined to the inner lining of the sac, and to the integument of the contained body.

Such is the structure and development of a typical pedunculate Cirripede. In other genera, such as *Pollicipes*, calcareous plates are developed on the peduncle, foreshadowing the compartments of the sessile forms. The latter, of which *Balanus* may be regarded as the type, differ in structure from *Lepas* in no very essential particular. The peduncle, very short and broad, instead of slender and elongated, is encased by its compartments, and sometimes fixed by a shelly basis. The arrangement of the layers of cement is often extremely complicated; the scuta and terga are articulated together; the frœna are much larger organs, and possibly subserve a branchial function; the thoracic ganglia are concentrated into a single mass; the cementing apparatus is much more complicated.

The pedunculate and sessile *Cirripedia*, taken together, constitute by far the largest of the three great groups into which Mr. Darwin divides the order; the *Thoracica*, characterised by having limbs attached to the thoracic somites, and the abdomen rudimentary.

The second group, the *Abdominalia*, contains only one genus, *Cryptophialus*, which has no thoracic limbs, but is provided with three pairs of abdominal appendages. The larva is very imperfect in its first and second changes, which are undergone within the sac of the parent—an exceptional case resembling that of *Echinaster scpositus* among the *Echinodermata*.

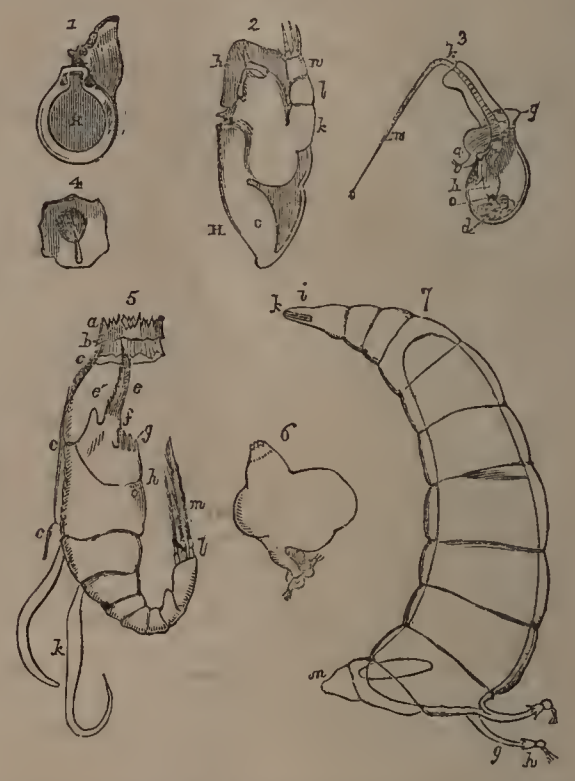
The third group, *Apoda*, likewise contains only one genus, the remarkable *Protcolepas*, which is devoid of either thoracic or abdominal limbs, and has a vermiform body, and a rudimentary peduncle, represented by two threads terminated by the antennæ.

In the great majority of the *Cirripedia* the sexual apparatus is disposed as in *Lepas*, but *Cryptophialus* and *Alcippe* are unisexual, the male differing very widely in form and size from the female (at least in the two latter genera).

The *Balanidæ*, or sessile Cirripedes, all present the normal sexual relations; but the other division of the *Thoraeica*, the *Lepadidæ*, contains two genera, *Ibla* and *Scalpellum*, which not only possess species having the sexes in distinct individuals, but others presenting the unique combination of males with hermaphrodites. Thus *Scalpellum vulgare* is hermaphrodite, possessing well developed male and female organs. Nevertheless, on the inner side of the occludent margin of its scutum there is a fold, over which and embedded in the spinose chitinous border of the scutum, a minute, oval, sac-like creature is commonly found, firmly attached by cement covering the characteristic antennæ of a Cirripede. Within the sac is a thorax with four pairs of rudimentary appendages terminated by a short abdomen.

There is neither mouth, alimentary canal, nor gnathites, the cavity of the body being principally occupied by a great seminal vesicle; and no trace of female organs exists. This is, therefore, an accessory, or "complemental" male.

FIG. 3.



1. *Alcippe lampas:* female. 2. The same in sectional view. H. Horny disk of attachment with the males, visible as dark specks on either side of its upper part. *h.* First pair of cirri. *k. l. n.* Three segments of the thorax without cirri; the other three segments bearing the three pairs of terminal cirri are very short. 3. Male *Alcippe.* *a.* Antennæ. *b.* Vesicula seminalis. *c.* Eye. *d.* Testis. *k.* Orifice of the sac. *m.* Penis. 4. Burrow of *Alcippe* in a portion of a *Fusus* shell. 5. *Cryptophialus minutus* (female) with the outer tunics removed. *e.* Labrum. *f.* Palpi. *g.* Outer maxillæ. *h.* Rudimentary maxillipede. *c.* Wall of sac. *l. m.* Abdominal cirri. *k.* Appendages of unknown nature. 6. Male *Cryptophialus.* 7. *Proteolepas bivincla. m.* Mouth. *g. h.* Peduncle and antenna. *i. k.* Vesicula seminalis and penis (after Darwin).

In *Scalpellum ornatum* the individuals are males and females, two of the former being lodged in cavities of the scuta of one of the latter, as in the preceding species, and in *I. rutilum*. The males have no mouth. *S. rostratum* has complemental males, provided with alimentary organs attached to the interior of the sac of the hermaphrodite, while *S. Peronii* and *villosum* have still more perfect complemental males fixed in a like position.

In *Ibla Cumingii* the female has a vermiform male, provided with well-developed alimentary organs attached within her sac, but in the only other species of this genus, *I. quadrivalvis*, a similarly constructed, but here only complemental male, is lodged in a hermaphrodite.

With regard to the habits of the *Cirripedia*, the majority are merely cemented to foreign bodies. *Anelasma* and *Tubicinella*, however, partially bury themselves in the integuments of the shark and whale, and thus prepare us for the completely boring habit of *Cryptophialus*, *Lithotrya*, and *Alcippe*, the latter of which burrows in dead shells on our own coasts.

Proteolepas lives within the sac of *Alepas cornuta*, and appears to be truly parasitic upon it, sucking the nutritive juices from the soft prosoma of the animal which it infests.

While fully acceding to Mr. Darwin's opinion that the *Cirripedia* constitute a distinct type, as different from the other great crustaccan types as these are from one another, I am inclined to lay greater weight than he does upon the affinities which connect the Cirripedes with those groups which are ordinarily massed together under the name of

Entomostraca. Thus the resemblances which exist between some *Branchiopoda* (for instance, *Lynceus* and *Limnetis*) and the Cirripedes, in the structure of their nervous and alimentary systems, in the huge labrum common to both, in the more or less rudimentary condition of the posterior gnathites, in the rudimentary state of the abdomen, in the reduced number of the thoracic appendages, in the production of the anterior somites into a beak-like process, more or less distinct from the rest of the body, in the form of the larva in its first and second stages (*Limnetis*) appear to me to constitute much more than an analogy, and to indicate as close an affinity as can well exist between two distinct types.

The only important connecting link between the Cirripedes and the *Podophthalmia* seems to lie in the analogy between the peduncle and the elongated antennary somite of *Leucifer* and its allies, which Mr. Darwin has so excellently pointed out. Even in this point, however, the *Cirripedia* are, I think, more closely connected with the *Branchiopoda*. The first condition of the larva, the mode of life, the condition of the males in some genera, have their parallel in the parasitic *Copepoda;* and I have already alluded to the points of resemblance with the *Ostracoda*, but I can trace no clear affinities or certain analogies with other *Crustacea*. I think, therefore, that the Cirripedes should take their place near the *Branchiopoda*, the *Ostracoda* and the *Copepoda*, perhaps between the two former groups and the last, but absolutely separated by their antennæ, their mode of adhesion, and the structure and connexions of their carapace, from all.

With regard to the homologies of the different parts in the *Cirripedia*, Mr. Darwin considers that seventeen of the typical twenty somites of a Crustacean can be recognised; in fact, that all but the last three abdominal ones are discoverable in the body of a Cirripede. Of these the abdominal somites become abortive in the adult of the thoracic or ordinary *Cirripedia*, and the seventh and eighth bear no appendages; while the first, second, and third give rise to the peduncle and the capitulum. The prosoma is the enlarged eighth, or seventh and eighth somites. Seeing, however, that the carapace of the larva in the first stage is continuous with the anterior part of the thorax, and that in the third stage it is not detached from the posterior part of the head, becoming separated from this only when the body assumes its transverse position, by the extension of the cavity of the sac sternally so as almost to cut the antennary somite in two, I am inclined to think that it must include tergal elements of the thorax. And, as regards the prosoma, the lodgement of the stomach within it, the attachment of the mandibular muscles, the relations of the nervous system, seem to me to lead to the conclusion that the post-antennary cephalic somites must enter largely into its composition.

(To be continued.)

ORIGINAL COMMUNICATIONS.

ARMY MEDICAL REPORTS.

(Selected, by Authority of the Director-General, from Documents in the Office of the Army Medical Department.)

No. XXXII.

(Concluded from page 85.)

ON SOME OF THE SURGICAL AND MEDICAL CASES ADMITTED INTO MALTA HOSPITAL DURING THE LATE WAR, 1854-55.

By JEFFREY A. MARSTON, M.D.
Staff Assistant Surgeon.

As has been already stated, under the head of Sloughing Phagedæna, affecting gunshot wounds, nothing is more common than to see an artery occupying the base of a sloughing or ulcerating sore, but nothing more rare than the implication of the arterial tunics in the local disease. Beside the cases already enumerated, in which secondary hæmorrhage occurred during the sloughing process, we may add the following:—

Case of rifle wound of right scapula, and lower part of anterior triangle of neck, attended with secondary hæmorrhage.—Private F. G., 49th Regiment, was wounded at Inkermann by rifle ball, which entered immediately beneath the spine of right scapula at its posterior extremity, and passing upwards and forwards made its exit near the right sterno-mastoid, immediately above the clavicle, at the lower part of the anterior triangle. Admitted into hospital from shipboard on December 29th, with inflammation and great ulceration in the track of ball, more particularly observable in the sinus, near the exit opening. The walls of the sinus sloughed, and the sterno-mastoid (inner margin) and sheath of the right carotid were exposed. He suffered more than once from slight arterial hæmorrhage, to the amount of some ounces at a time; subsequently, as this returned upon the removal of pressure, and this prevented the healing of the wound, the sinus was opened on a recurrence of hæmorrhage, and a branch of the inferior thyroid tied, by which it was completely arrested. Discharged to England nearly well.

Case of comminuted fracture of left tibia from round-shot injury, with sloughing implicating an immense varix; application of nitric acid; no hæmorrhage.—Private W. Q., 97th Regiment, admitted July 27th, 1855, with sloughing of a wound, produced by round shot in the calf of left leg, sustained on 18th June last. The wound had commenced sloughing five days before. Nearly two-thirds of the calf of the leg implicated in the process. A very large varix (composed of masses of enlarged and distorted varicose veins) was involved in the sloughing, and some venous hæmorrhage had occurred, but was restrained by pressure. A compound comminuted fracture of the tibia existed also; some of the pieces of bone were evidently in a state of necrosis. After careful washing and drying of the sore, nitric acid was applied copiously to convert the whole into a slough. The edges and base of the ulcer, including the whole varix, separated on the third day without any hæmorrhage, and the sore began granulating after the removal of some sequestra of different sizes, varying from half an inch to four inches. The wound ultimately healed, and he was discharged to England.

Rifle ball wound of left popliteal region; sloughing of all the tissues of the leg; hæmorrhage; ulceration and perforation of the knee joint; death.—Private T. V., 18th Regiment, sustained a rifle-ball injury of left popliteal space on the 18th June, and was admitted into Malta Hospital from sloughing having attacked this wound, and hæmorrhage having frequently occurred from it. There was a large boggy abscess of the popliteal cavity, extending some distance upwards along the posterior part of thigh. The muscles and arcolar tissue of the back part of the leg and anteriorly were diffluent and sloughing. The anterior surfaces of the tibia and fibula were exposed, and the fingers could be passed easily from the back to the front surface of the limb. The greater portion of this cavity was filled on admission with clotted blood, and the man was exceedingly exsanguine and faint. The popliteal artery, as far as its division into the tibials, could be traced by the finger in the wound. After some stimulants had been given a tourniquet was placed upon the femoral and all the clots removed, when hæmorrhage occurred from the very bottom of the wound behind, as a gush; pressure direct with the fingers restrained it. From the sloughy condition of the limb, its great distension by inflammatory effusion, the loss of blood, and the complete exposure of bones and artery, the probable implication of the popliteal vein, with the man's depressed condition, amputation seemed the only remediable measure; but this was opposed by some other military surgeons. On the evening of the 29th July, two days after admission, hæmorrhage again occurred, pretty large in quantity, when the muscles and tissues at the back of the limb were laid open to a great extent, partly to remove the clots and give exit to pent-up matters infiltrated in the limb, and chiefly with the hope of discovering the seat of hæmorrhage. Although the bleeding was going on at the commencement of the operation, it stopped entirely from the exposure to the air, and no bleeding took place upon removing the tourniquet, even though sponging with warm water was used. The muscles of the calf were laid open by a bistoury, guided by the fingers inserted into the wound. No subsequent hæmorrhage occurred after this, and the condition of the limb began to assume a more healthy aspect. The extension of the ulceration and abscess continued upwards however, notwithstanding the fact that the walls of the sinus were incised freely, and a graduated compress of lint was placed upon the sac of the abscess. After about

four days he suddenly had rigors, so regular in character as to resemble quotidian ague. The skin and conjunctivæ became yellowish. Pulse quick and jerky; the tongue red and dry; complete loss of appetite followed, with great vomiting, and he died the beginning of August. An autopsy revealed numerous large boggy sinuses, running in the direction of the muscles of the leg. The muscles looked yellowish and were nearly friable, from inflammatory softening. The posterior and upper part of the popliteal cavity formed a large sloughy abscess, at the bottom of which lay the vessels. The bones of the leg and intercondyloid fossa of femur were quite denuded. The muscles of the whole calf were diffluent and degenerate. A small ulcerated aperture existed in the posterior ligament of the knee-joint, through which pus had entered the joint; the cartilages looked rough, soft, and denuded, and some purulent lymph existed in the inner surface of the synovial membrane. A rifle ball had perforated the back part of the head of the tibia, and was deeply imbedded in the bone. The popliteal vessels were intact, and (although carefully searched for) the source of the hæmorrhage was not discovered. Every stimulant, and the most liberal diet, was used in this case. The onset of rigors was undoubtedly contemporaneous with the perforation of the knee-joint, to which all the constitutional symptoms were due. Considering the effort made by nature for the recovery of this man, there can be little doubt, we fear, that had the limb been amputated he might have recovered, particularly as the improvement in the local condition of the limb was such as to warrant the conclusion, that the union of the incised edges of the flaps would have been attained.

Division of the external plantar artery, attended with hæmorrhage and slight sloughing; arrest of hæmorrhage by ligature of posterior tibial.—Private C. D., aged 19, 19th Regt. admitted June 1, 1855, for a wound of the plantar surface of the left foot, caused by a piece of sharp stone, which entered while bathing. The wound was about one inch in size, and had extended in depth to the heads of the metatarsal bones. Arterial hæmorrhage had arisen, and been restrained by direct pressure. About two days after the bandages and compress were removed, on account of inflammation having attacked the wound. Hæmorrhage again ensued; restrained, however, by pressure direct, and on the posterior tibial. On the next recurrence of hæmorrhage, an effort was made to secure the vessel; but its depth, the muscular and tendonous character of the tissues, and the fact of the base of the wound having slightly sloughed, prevented the two ends being seen. A protracted attempt was made, without avail, and the posterior tibial, behind the inner malleolus, was then secured, and the hæmorrhage arrested. The difficulty in this case, from the smallness of the vessel, its depth, the unyielding character of the tissues of the plantar surface of foot, conjoined with the deep sloughing, the inflammatory swelling and infiltration of blood, prevented the prior operation succeeding, but a portion of impacted flint was removed from the bottom of the wound. As pressure upon the posterior tibial before operation did not completely restrain hæmorrhage, we feared it would recur, but fortunately it did not. In the event of another case of this kind occuring, we should feel inclined to try the effect of the actual cautery (as a small piece of live charcoal) applied to the seat of the hæmorrhage, when exposed, before having recourse to the ligature of the posterior tibial. As it was, however, we followed the rule laid down by Mr. Guthrie, and possibly a more practised operator might have succeeded in securing the external plantar, although we failed.

Among the numerous operations for the removal of necrosed bone, the result of gunshot and other injuries, we may adduce the following as interesting:—

The earlier the operative measures are adopted in these cases, commensurate, of course, with the right condition of the case, the greater facility will be found; inasmuch as the sequestra following gunshot injury are generally numerous, and each one forms a centre, round which new bone becomes copiously deposited. The density of this osseous deposit, of course, depends in some measure upon its age, and at first it cuts comparatively easily; while, at a later period, the difficulty of cutting through so many portions, to get at the numerous sequestra, may render an operation protracted and difficult. Mr. Guthrie's remarks on this head are in strict accordance with this, and have been before referred to.

Case of comminuted fracture of left clavicle and first rib, from rifle-ball injury; wound of lung; lodgment of ball; necrosis of the detached portions of bone, followed by comatose symptoms. Operation—recovery.—Private S. C., 44th Regiment, admitted from shipboard, July 27, 1855. Sustained a rifle-ball injury of root of neck on the left side, with fracture (comminuted) of the clavicle and first rib, on the 18th June last. Report states that the ball was not found, that he had sharp hæmoptysis, and that during the voyage he suffered from delirium and subsequent hebetude of expression, amounting almost to coma. On admission his pulse was 80, and full; he lay on his back, required to be shaken before he spoke, and was very deaf. On the 28th his condition was the following:—"He eats nothing, never moves nor speaks, unless when greatly roused by an attendant. The food has to be passed back into the gullet before he will swallow. The left pupil is widely dilated. He passes urine and fæces in bed." Upon examination, a tumour of an osseous character existed in the seat of the wound, and a great deal of inflammatory swelling around this. The jugulars of that side prominent and congested. A probe passes along a sinus to the seat of fracture, and necrosed pieces of bone easily detected. After an interval of two days his breathing became heavy and snoring, scarcely stertorous. He could not be made to move, nor speak, nor swallow. Both pupils dilated, the left widely so. Is perfectly insensible, and evidently passing into complete coma. A crucial incision was made over the seat of the swelling, and the flaps dissected back; then, by means of a small saw, the new bone was easily divided, and about ten pieces of necrosed bone of various sizes removed, at the same time that about an ounce of pus was evacuated. The ball was not discovered. He was more sensible the next day, and could be roused. On this day, and during the succeeding three, many loose pieces of bone were removed, and much pus evacuated. He became much relieved, and gradually became perfectly sensible, recovering so much as to become an orderly in the ward. The swelling of the neck, and enlargement of the jugulars, subsided, and the left pupil was contracted normally on the third day after operation. This case was supposed to be necrosis of the dislocated fragments of bone, with inflammation and abscess following, by which pressure was exerted on the venous channels of the neck, with cerebral congestion; and the prominence of the jugulars, dilatation of the left pupil, with the gradually crescent comatose symptoms, and their decadence after operation, seemed to prove this. It was feared that a portion of detached bone might have pierced the vena innominata, and that upon its removal either extensive hæmorrhage or the entrance of air into the vein might prove fatal, particularly as the proximity of the vessel was so immediate; hence the operation was somewhat protracted, and limited in point of extent. Invalided to England quite well, save some loss of motion in that arm, from falling forwards of the same shoulder.

Cases of necrosis of a portion of the trochanter major, succeeding rifle-shot injury, with lodged ball. Operation.—Private H. C., 19th Regiment, sustained a rifle-shot wound of right hip, on the 20th September, 1854. The ball had lodged, and could not be discovered. He was admitted into Malta Hospital December 29th following, with great pain in the seat of wound, and much inflammatory swelling. Numerous sinuses existed on the outer side of hip-joint. The movements of the limb were perfect, but accompanied by pain on the outer side of hip. A probe touched the great trochanter, which was roughened, and denuded of periosteum, and appeared to yield a little on pressure. An incision of crucial form was made over the site of the trochanter, which was easily exposed, and partly removed in the form of three pieces of necrosed bone. The ball was also extracted from the upper third of thigh at its posterior part, being discovered in the situation of a sinus. Sent to England nearly well.

Musket-ball injury of lower jaw and teeth, followed by necrosis. Operation.—Private J. Y., Scots Fusilier Guards, aged 30, sustained musket-ball injury at Alma of left side of face. The ball entered the left side of the cheek, and made its exit on the right side near the angle of lower jaw, carrying away portions of the alveolar process and molar teeth. The tissues on the right side, were much swollen; the exit opening looked unhealthy, and discharged much pus. The entrance wound had healed. Numerous sinuses led down to the lower jaw, and some small loose pieces of necrosed bone were touched by probe. An incision was made on the inner side of right cheek, and some portions of bone removed; while other small sequestra remained to be removed through the exit wound.

He was sent to Chatham much relieved, but there probably existed some sequestra yet to come away.

Rifle-ball injury of right cheek, with exfoliation of bone.—Private G. W., Scots Fusilier Guards, sustained at Alma a rifle-ball wound of the right cheek; the ball entering behind the ear, and making its exit near the malar protuberance of the same side. A sinus existed leading down to the denuded surface of the superior maxilla, from which a large sized shell of bone necrosed, and was removed; after which he recovered, and was sent to England.

Case of gunshot fracture of humerus, followed by necrosis; great splintering of the bone; partial recovery.—Private F. C., 95th Regiment, sustained a gunshot fracture of the left humerus at Inkermann, by which the bone was splintered into as many as five or six large fragments. These extended within a short distance of the elbow-joint, but not into it. They were little, or not at all, displaced, and the splitting took place in a more or less longitudinal direction. He was admitted into the Hospital in December, 1854, with the arm enormously swollen, from inflammation and pent-up pus, and in a very bad state of health. Three or four sinuses existed in various parts, through all of which bone might be felt. Upon handling, the fragments might be easily felt, and crepitated upon pressure. The bone and periosteum appeared very much enlarged; the tissues of the whole arm, as far as the axilla, were swollen, inflamed, and intensely painful, and many deep-seated abscesses existed. The condition of this man, constitutionally as well as locally, was so bad, that amputation seemed at first a justifiable measure. After numerous incisions and fomentation the inflammatory swelling subsided; a large quantity of pus was evacuated at different periods. The sinuses existed chiefly near the elbow-joint, about three inches above it, and denuded bone was detected by the probe. The pieces were evidently large, but more or less adherent to the periosteum, and they could be easily moved by pressure from without. It was proposed to make an incision from the outside, and turn out the diseased bone, extract the sequestra, and excise the ends of the bone as well as possible; but the man would not submit to any operative measure. He was remarkably courageous, and felt quite confident of his arm getting "all right" naturally. Some pieces of bone were removed by the sinuses from time to time, and the amount of new bone deposited around the fragments became very great, consolidating, in a great degree, the whole. The sinuses healed in a great measure, and he was sent to England, in his own opinion cured; but there evidently existed much necrosed bone, which was impacted in the new osseous deposit.

Case of amputation of the third and fourth fingers, with excision of the heads of the metacarpal bones, for necrosis following gunshot injury.—Private J. R., Scots Fusilier Guards, admitted January 2, 1855; sustained a rifle-ball injury of the hand at Inkermann, by which the joints of the third and fourth fingers were laid open, and the fourth metacarpal bone splintered near the head. The soft parts in the palm of the hand had been much destroyed by the injury and subsequent inflammation. The ends of the bones exposed to the air necrosed, the third and fourth fingers were removed, the ends of the corresponding metacarpal bones excised, and covered by a flap formed from the palmar surface. He was sent to England well.

We may mention here that, judging from the cases we saw, the exit wound is the one which more generally ulcerates or sloughs first. It is generally, also, the larger, and slowest to heal. Much, however, depends here evidently upon the seat of injury, the proximity of bone to one or other opening, and the presence or not of foreign bodies; for if bone be injured, and the ensuing necrosis or exfoliation approach nearer the surface of one of the wounds, that generally will be the one which will ulcerate or inflame, and heal latest; while foreign bodies, as pieces of shot, clothing, etc., will generally be nearer the exit opening than that of entrance. From an examination of the number of cases we have seen, by far the larger proportion of cases of sloughing or ulcerating, and indisposition to heal, existed in the exit openings, which, as a rule, were larger in size, and less clearly edged and defined than those of entrance.

INJURIES OF THE CRANIUM.

Fracture of the right parietal bone without depression; subsequent meningitis and coma; trephining; death.—Private J. A., 20th Regiment, aged 18, fell down the main hatchway of the Sultana, January 1, 1855, and was admitted into Hospital on the 8th. There was a large oval sloughy wound over the right parietal bone on its anterior aspect. The pericranium was much separated around, and the bone exposed. It was carefully examined, but no fracture detected. A slough was removed on the 10th. He stated that he had symptoms of slight concussion after the fall, but soon recovered. He appeared in perfect health, and without any symptoms of impending disease. The pericranium around the seat of injury having sloughed much, exposed now a slight fissure in the parietal bone, running obliquely from behind forwards. He was carefully watched, and kept on low diet, water-dressing being applied to the wound. The bone was at first rose-coloured, and the wound healthy; but subsequently the granulations ceased, the discharge diminished, and the whole became of a dry and irritable aspect. No change took place in his health in any respect. He ate, slept, and appeared well, complaining of no pain in the head. On the night of the 11th, however, he rose from his bed, and was unable to find it again. He had been treated during this time with small doses of mercury, which was continued. On the 12th he had rigors, the pulse became slower but firm, and there was great sluggishness both mental and physical. On the 13th he was quite comatose, had strabismus of the left side, and widely dilated pupils. The same day he was trephined, and the greater portion of the cracked bone removed by Hay's saw. There was a slight amount of exudation upon the external surface of the dura mater, of a firm consistence. As the brain rose and fell during expiration, and with the pulsations, and there was no existence of pus beneath the dura mater, no opening was made. From this time he rapidly became worse, the pulse becoming so quick and weak as to be scarcely appreciable; coldness of the extremities, with slight spasmodic jactitation of the right side, supervened prior to death.

A *post-mortem* revealed a somewhat sloughy appearance of the dura mater around the seat of the removed bone. About half-an-ounce of sero-purulent fluid was evacuated from the sac of the arachnoid. On the whole surface of the right hemisphere of the brain was a complete layer of thick yellowish opaque exudation, which had partly degenerated into pus. It dipped down into and between the sulci, and was an evident pathological product of the dura mater. Much existed also on the left side, but less in amount, and not so advanced into degeneracy as that on the opposite side. Besides some congestion of the cerebral grey substance, nothing else abnormal was noted.

This case is one of a too common character. In coma following simple fracture it is very rarely indeed that pus exists located between the dura mater and bone without coincident effusion from pia mater or disease elsewhere, and almost as rare (where coma supervenes speedily, after a simple fracture), to find a coagulum in a situation capable of being removed by operation. Mr. Colles, in his admirable lectures, has dilated on this most fully and most truthfully. However much it may be our duty to offer the chance of an operation, under such circumstances, it will indeed be very rare that we can have the pleasure of meeting with any success, or doing the least good. Every case that we have witnessed in civil and military practice has been attended with similar results, and the morbid appearances have been such as to prevent the possibility of removing the product of the disease or injury. The works of the elder Surgeons would lead us to believe that operative measures for removing pus from the surface of the dura mater, or, under other symptoms, a coagulum, were not unfrequently successful; a result rarely, if ever, witnessed by moderns. Although we do not think that it is a generally credited fact, that pus or coagulum between the dura mater and bone, or the separation of the former from the latter, will be ascertainable, as Mr. Pott stated, from the non-vascularity of the diploe, yet we may mention that such has not been the fact in any such cases we have seen.

Case of fracture of left frontal bone, orbitar plate, with laceration of the cerebral membranes, and other injuries of an uncommon nature.—This case is only interesting on account of some peculiar injuries present. Private J. W., 31st Regiment, was admitted into the Hospital on February 9th, 1856, having fallen over a bastion thirty feet high whilst drunk. The injuries discovered were, a fracture of both bones of right leg, with great distortion and evident laceration of the softer tissues, but not compound; fracture of the right ulna lower

third; fracture of metacarpal bone of left index finger, with some other injury of the metacarpus which could not be diagnosed. A ragged wound existed in the left frontal region, about one inch above the orbit, with an evident fissure in the bone. After symptoms of concussion, followed by meningitis and coma, he died on the fifth day after the accident.

Post-mortem revealed, besides a fracture of both bones of the right leg, with great laceration of muscular tissue, a fracture of the left ulna, and fracture of the index metacarpal bone, and the following injuries:—1. A fracture existed in the frontal bone, running across the left orbitar plate, and stopping at the junction of the æthmoid. The dura mater was completely torn here, and the cerebral tissue, with the pia mater, occupied the seat of the rent. This portion of the brain was covered with pus and degenerate lymph, and had the appearance of a sloughy ulcer; a great deal of blood was also effused in the immediate neighbourhood. 2. A complete dislocation of the third metacarpal bone backwards, with a small portion of the os magnum about the size of a small filbert fractured off, and dislocated with the metacarpal bone. 3. By accident a fracture was found of the scaphoid of the right tarsus, its outer third being split cleanly off, without any other injury whatever of the foot, and unattended by appreciable swelling.

Under this head we may mention that three cases of meningitis, with coma and death, occurred from among the admissions from otorrhœa, giving rise to disease of the petrous bone, with perforation of that bone by apparent ulceration, and subsequent meningitis.

The liability to cerebral affections at a remote date after the receipt of any injury of the cranium is proverbial, and was well marked in one case, (whose name we forget.) He was afterwards admitted into Hospital with a wound of scalp, received at Inkermann, and attended only with slight concussion at the time, and ecchymosis. He was landed from shipboard here to make room for more serious cases, and remained in Hospital apparently well for months, and was discharged to England, where, we are told, some eight months after Inkermann he had meningitis, produced after drinking, which gave rise to coma and death in a few days.

Wounds of the bowel.—We only had two cases, one of which was gunshot injury, and the other rupture from violence, and death.

Gunshot injury of bowel. Recovery.—Private J. M., 2nd Battalion Royals, sustained a rifle-ball injury on 7th June 1855, in the right side of abdomen, immediately above the crest of ilium, which it had fractured in its course. The ball was removed by incision from the middle of the buttock a few days after. Admitted into Malta 27th July following; a report sent with him stated that fæcal matter had exuded through the course of the wound during voyage. The entrance wound was about one inch above, and two inches to the inner side of right crista ilii. The exit opening large and ulcerating, in the buttock. The Surgeon under whom he was placed stated that the discharge from the sinus had a fæcal odour and appearance. Some pieces of bone were removed by incision from the exit wound. The parts were fomented, and discharged for a week or more a very large quantity of purulent fluid mixed with dark coffee-ground matter, having a odour of fæces. After a short time the entrance wound healed completely, and a very dense depressed cicatrix existed there, when no further discharge took place; and the exit wound, through which some discharge occurred, ultimately healed, and he became convalescent, and was discharged to Chatham. During the whole of this time the bowels acted pretty regularly.

Complete rupture of bowel, psoas, and rectus muscles, followed by peritonitis and death.—Private A. J., aged 40, 1st Battalion Royals, was admitted into Hospital June 20, 1855, about 7 p.m. having the following history:—While employed in Malta Harbour, working the capstan, the rope broke, and he fell with tremendous force upon a handspike. He was taken up with symptoms of intense collapse. The injury happened at 11 a.m. Upon admission his pulse was very small, and about 116. He lay on his back, with flexed knees and thighs. Expression of face was that of more or less collapse and anxiety. Upon examination, there was an extensive ecchymosis of the lower third of the abdominal parietes; close to and upon the left side of the rectus muscle was a tumour which had a fluctuating feel, and, upon deeper pressure, gave a sense of gurgling and crepitation, as if of a portion of gut occupying the seat of a ruptured muscle and aponeurosis, and mixed with blood, partly coagulated. The respiration was thoracic entirely, and the abdomen tender on pressure, but not by any means so much so as generally in acute peritonitis. The symptoms of collapse, indeed, had masked those of pain and tenderness to a great degree. He had passed no urine since the morning. A catheter was introduced, and about half-a-pint of clear urine removed. He groaned a great deal. The abdomen was covered with leeches and fomentations, and 2 grains of opium given every two hours, with some brandy and water. He vomited once, but not any blood. He suffered from extreme thirst, and about five hours before his death he sat up in the bed, unsupported, and drank some wine. The feet and hands became cold and livid, and he died about 4 a.m. next morning.

Post-mortem.—Upon opening the abdomen it was found that the external tumour was formed by a protrusion of several coils of intestine through a rupture of the rectus muscle and aponeurosis. The internal abdominal fascia was cleanly split, as if with a knife; the rupture, however, of the muscle was irregular, and rounded in form. Much blood was extravasated into the abdomen, and around the seat of injury. The parietal layer of peritoneum was cracked in a longitudinal direction. The whole surface of peritoneum was highly injected and inflamed, and a great deal of venous blood existed within the sac. Upon further examination, a complete rupture of the smaller bowel was found to exist about the upper third of the ilium; the divided ends having an ecchymosed appearance, and being separated from each other at least an inch. Some extravasated blood was found in the interval between the ends, but no fæcal extravasation had occurred. The muscular fibres around the divided ends of the bowel had contracted, and rendered these somewhat conical in form. The psoas muscle of the left side was ruptured, the fibres looking jagged and uneven, with some coagulated blood between them. The iliac fascia, however, was entire. The other organs of the body were healthy.

Among the cases of supposed injury to the trunks of nerves from gunshot injury we may relate the following:—

Case of rifle-ball injury of right arm, below the elbow, with consecutive neuralgic pain.—Corporal J. O'S., aged 28, 95th Regiment, at the battle of Inkermann sustained a rifle-ball injury of right forearm. The ball had entered immediately behind the inner condyle of the humerus, and had made its exit in the forearm, close to the tendon of biceps, on its outer side. The humeral artery appeared uninjured. During the healing process, he began to complain of great pain in the palm of the hand, shooting to the muscles of the thumb and first three fingers. The little finger was always exempt. The pain he described as shooting downwards, like a heated body; and it was often preceded by a feeling of numbness, which gave way to a pricking sensation about the finger ends. It was supposed to be due to some inflammatory exudation, involving the trunk of the median nerve. The exit wound was opened, as an abscess had formed beneath it, and the bleeding and escape of pus gave him partial relief. He was, however, sent to Chatham, but partially recovered.

MEDICAL CASES.

The following cases appear to us as worthy of record, on account of their comparative rarity:—

Case of apparent idiopathic trismus, from arthritic affection of the lower jaw, succeeded by rheumatic inflammation of various points.—Sergeant J. B., aged 36, 33rd Regiment, was admitted into the Hospital August 10, 1855, with symptoms of trismus. He appeared much agitated, made many efforts (which were attended with pain), to open his mouth, but could only partially succeed. The masseter and temporal muscles were very rigid. He complained of pain in the joint. There was no appreciable swelling. He had suffered from dyspepsia frequently, and remembered to have had pain, swelling, and immobility of the fingers, from rheumatism. His urine was high coloured, of high specific gravity, and laden with urates. Bowels confined. Purgatives, with alkalies and colchicum, were administered, followed by iodide of potassium and quinine, and he ultimately became convalescent. The arthritic inflammation of the lower jaw, however, remained three days, and he had evidently a similar affection of the fingers of the left hand and right ankle-joint, which persisted for some period; but the local disease speedily left the jaw, in which it had first appeared.

These cases of rheumatic gout appear to us, on many grounds, to be more nearly allied to the latter affection than the former, if one may judge from their chronicity, their erratic tendency, the prior appearance of dyspeptic symptoms, and the frequent coincident fact of hereditary predisposition. We believe, in the College of Surgeons there is a preparation of anchylosis of the inperior maxilla, from some chronic affection of a rheumatic character, but it is a comparatively rare seat of any disease.

In some patients there is an evident tendency to the production of spastic muscular spasm, under the slightest exciting causes. To adopt Dr. Todd's view, the polar condition of the nervous force is easily excited and expended in these patients. We have seen two cases of idiopathic trismus, occurring among soldiers. One, a private in the 72nd Highlanders, was admitted into the Malta Hospital, under the care of his own Surgeon, with trismus, which persisted for some days. The affection was perfect in this case, the muscles of mastication being rigidly contracted, and the teeth pretty firmly closed. The disease had recurred more than once in this man, and there appeared no obvious cause whatever, save that it generally supervened after a more than ordinary potation of "mountain dew." In another case, a decayed tooth seemed to have been the "incident excitor stimulus;" for after its extraction he had no recurrence of the disease, that we are aware.

Ramolissement cerebri, attended with trismus; clonic spasms; paralysis of tongue. Post-mortem.—Private M. H., aged 33, of the 63rd Regiment, was admitted into the Hospital under the care of Dr. McDowall, on the 8th of February, 1856, with the following history:—Was a military servant; had served in the Crimea, where he was wounded in the leg. Had enjoyed invariably good health; an intelligent man, of nervo-bilious temperament. On the 7th of February he had a shivering fit at midnight, which had all the appearance of ague. On admission next day he presented the following symptoms:—Face pale; expression somewhat anxious; almost complete trismus, which he endeavoured to overcome by strenuous efforts; inability of utterance, or loss of mobility of tongue from apparent paralysis; retention of urine, which continued throughout treatment. The urine removed was high-coloured and scanty, but not albuminous; marks of a syphilitic papular eruption on thorax; skin moist and warm; pulse of normal calibre and force, 90; tongue, as far as could be seen, moist, but furred; sounds of chest perfectly normal; complains of pain in the epigastrium; no tenderness, but slight tension of the abdominal muscles. On the 9th, in nearly the same state; trismus less marked; faint attempts at utterance. He wrote on a slate his symptoms, and stated that he could not move his tongue. On the 10th trismus disappeared; could open his mouth, but not move his tongue; clonic contractions of the muscles of the right forearm supervened to-day, most marked in the twitchings of forearm and fingers, but not completely uninfluenced by volition; bowels constipated. No urine passed without use of catheter. On the evening of the 12th, in nearly the same state, but slight ptosis of left eyelid supervened; immobility of tongue persisted, and the trismus reappeared. On the 13th, 14th, and 15th, symptoms became more marked: the pupils contracted; clonic spasms of right arm, occurred more frequently and persistently; the left arm slightly affected with same motion; pericranium not at all hot; he passed no urine, and the quantity removed by catheter remarkably small. The movement of the inferior extremities continued perfect throughout. On the afternoon of the 15th symptoms of uræmia appeared, accompanied by the most profuse diaphoresis; pupils very contracted, sensible. About 3 a.m. same night he died, and, from the statement of the orderly, apparently comatose.

Post-mortem.—Not to be tedious, we may succinctly relate, that the spinal cord appeared perfectly healthy throughout. The cerebral membranes also quite normal. Upon opening the lateral ventricles, acute red softening was found, involving both corpora striata and optic thalami. The softened portion was about the size of a small egg, was very diffluent, and had the appearance of strawberries and cream, from the amount of exudation matter and blood intermingled with broken up cerebral tissue. The appearances were exactly symmetrical on both sides, save that the morbid changes were scarcely so far advanced on the left side. All the other organs of the body were healthy, with the exception of the left kidney, which was much congested.

This is an exceedingly interesting case. The essence of the affection was diagnosed during life; but the difficulties of the case were not explained, nor does it appear to us that they are altogether removed by the autopsy. The tonic contraction of muscles supplied by the motor branch of the fifth pair, with paralysis of the lingual nerves, paralysis of the bladder, with clonic contractions of the superior extremities, and complete motor nominality of the inferior extremities and rectum, as concurrent symptoms, appear to us very obscure. Unfortunately, we had no reliable microscopic aid to examine the condition of the smaller cerebral vessels, so that their condition as to degeneracy or aneurismal alterations, as noticed by Paget and Virchow, could not be determined, nor could Gluge and Bennett's test for discriminating the inflammatory form be well applied, although there can be little doubt, from the pathological appearances and symptoms during life, that the disease was of an inflammatory origin.

Case of ulceration, and perforation of the appendix vermiformis from hardened fæcal matter; peritonitis. Death; autopsy.—Private T. G., aged 18, East Kent militia, admitted into Hospital 19th September, 1855, suffering from dyspeptic symptoms, with obstinate constipation. Purgatives and injections had been given without overcoming the obstipation; and as tenderness became manifest in the right iliac fossa, these were withheld, and calomel with opium, and warm water injections only used. No relief by stool was afforded. Symptoms of acute peritonitis appeared, and he died on the 22nd, at 4 a.m. *Post-mortem* revealed impaction of a filbert-shaped lump of hardened fæces in the appendix vermiformis, and ulceration of this portion of the gut, on its posterior surface, with escape of some of the contents of bowel. The edges of the ulcer had sloughed, and the whole of the vermiform appendix was much inflamed. The peritoneum was universally inflamed, and along the surface, in the more immediate neighbourhood of the ulcer, it was covered with recent lymph and purulent fluid, which extended as far as the under surface of the liver and front surface of right kidney.

Case of hepatic abscess, with entire ulceration; curious position of the left kidney.—Private H. T., aged 26, of the East Kent militia, was admitted into Hospital in August 1855, with symptoms of dyspepsia, and diarrhœa, followed by ascites and anasarca, with enormous enlargement of the liver, from chronic hepatitis and abscess; of which he died in September following. *Post-mortem.*—An enormous abscess of right lobe of liver, which was pointing toward the surface of the abdomen; the peritoneum being perfectly adherent and thickened. The sac of abscess was as large as a cup, and its walls very thick, with velvety rugose lymph. The portal branches were enormously enlarged, portal vein being the size of a thumb; while the inferior cava was distended to nearly the size of a wine-glass. Numerous ulcerations existed in the ilium. The following curious disposition of parts was discovered:—The left kidney was placed in the pelvis, close to the left sacro-iliac synchondrosis, having the rectum (its first portion) making a horizontal turn over it, to reach the median line. The kidney was bilobed, and pyriform in shape, having the pelvis and ureter passing from it at its inferior extremity, and continuing onwards behind and at the side of rectum to terminate in the bladder. The aorta gave off at its termination a large renal artery (in the place of the sacra media), which terminated in the left kidney. The left renal vein was derived from the left common iliac vein. Nothing else worthy of note was observed.

OBSERVATIONS

UPON THE TREATMENT OF CERTAIN

DISEASES OF THE KNEE-JOINT BY THE OPERATION OF RESECTION.

By P. C. PRICE, Esq.

Junior Surgeon to the Great Northern Hospital, Surgeon to the Metropolitan Infirmary for Scrofulous Children at Margate, etc.

(Continued from page 114.)

It is satisfactory to turn from the consideration of one form of disease, which not only destroys the integrity of an important articulation, but forbids the adoption of a useful and conservative operation, to another phase of the same affection which, although in its ravages destructive to the functions of the

articulation, may be treated with propriety and advantage to the patient by a proceeding milder and more beneficial than amputation.

The circumscribed form of strumous or tuberculous infiltration of the cancellous extremities of the tibia and femur, destructive to the functions of the knee-joint, and incurable without operation, is the disease which I shall endeavour to show admirably admits, on frequent occasions, of such treatment.

This form of strumous disease of the open texture of cylindrical bones is recognised by most pathologists of the present day; but it is only of late that the importance of a more precise and definite recognition has been practically acknowledged. It was formerly considered of slight import what the exact pathology of the disease which destroyed the integrity of the knee-joint might be, provided no remedy save removal could be relied on. The sweep of the amputating knife through healthy parts above the seat of disturbance was held to be the orthodox proceeding; and so firmly had this doctrine been stamped upon the minds of most Surgeons, that, even now, many are still inclined to look upon a nice distinction as of more theoretical than practical utility. Amputation, when resorted to under such circumstances, could not be considered opprobrious, but at the present day, when experience advances facts worthy of belief and imitation, and shows the beneficial results accruing from the adoption of resection, then, beyond doubt, the former proceeding must oftentimes be considered as uncalled-for, and deserving the condemnation of the modern and enlightened surgeon. Such an expression is not the offspring of mere hypothesis, but a conviction based upon the results of cases which have fallen of late years under the care of various surgeons. But for the establishment of a great fact in surgery, it is seldom sufficient to announce the favourable termination attending a new innovation to old-established practice. An explanation of the rationale of a proceeding, the adoption of which has been rewarded with success, is with justice expected by those who are inclined to receive with scepticism statements they have not had the opportunity of verifying, or which, on a first announcement, have appeared antagonistic to preconceived ideas of theory and of practice. A due consideration of the morbid changes which take place in the spongy extremities of either of the bones forming the knee-joint will serve to strengthen the validity of such an opinion, and leave less doubt upon the minds of those who have not, perhaps, directed special attention to the consideration of the advantage of this proceeding over amputation.

Mr. Paget, in his excellent Lectures on "Surgical Pathology," has alluded to this form of disease in the following terms:—

"In the circumscribed infiltrations, the tuberculous matter usually forms round or oval masses, which are imbedded in cavities in the interior of the bones. At these cavities, several of which may exist near together, the normal textures of the bone appear to be disintegrated or absorbed, just as those of the lung are during the infiltration of the tuberculous matter among them. When the liquefaction of the tubercle takes place, a similar imitation of the formation of cavities in the lungs is noticeable, the usual thin puriform fluid is produced, and is often mixed with little fragments of bone. The bony cavity including it commonly becomes lined by a thin, smooth, closely adherent membrane,—the product, apparently, of ordinary inflammation. Appearances are thus attained, especially in the bodies of vertebræ, like those of numerous small chronic abscesses in bones; and similar cavities may be found between the bone and peritonæum, where the tuberculous matter has been formed between them, or has included the surface of the bone in its infiltration. The liquid contents of the cavities may be discharged through narrow apertures in the walls of the bones, or other surrounding parts; but commonly a more acute inflammatory or tuberculous formation ensues, destroying both the walls of the cavities and their boundaries."

The chief distinguishing feature between the two forms of strumous infiltration is, therefore, obvious. In the diffuse variety the entire surface of the head of the bone is more or less included; while in the circumscribed form the morbid deposit is insulated by healthy osseous structure; and, provided the islands of disease be removed, little doubt need exist of ultimate reparation succeeding, more especially if the powers of nature be such as to encourage prompt and healthy action.

The questions of practical interest connected with the treatment of cases answering to the above description are twofold. Firstly, how far is it possible to recognise this affection, and what condition of the joint not only justifies but demands interference? Secondly, what operation is best suited for the eradication of the disease, and the comfort and advantage of the patient?

I have already remarked that the correct diagnosis of joint-disease is frequently obscure and difficult, and, as far as I am aware, no series of symptoms, or any one apparent distinguishing particular, is sufficient to warrant the Surgeon in offering, at an early period, a precise and definite opinion as to the existence of this affection. Obviously this assertion holds good. Circumscribed strumous infiltration of the extremities of either of the long bones forming the knee-joint may exist for an indefinite period before causing any serious discomfort to the patient, by involving, in a structural or even sympathetic way, the functions of the articulation. As the disease progresses, pain and annoyance may direct the attention of the patient and his Surgeon to the existence of mischief within the bone, but no decided fear may be entertained till the irritation spreads to the joint, and the disturbance and distress become more marked. This aggravation is, in general, incidental with the occurrence of suppuration or ulceration, and provided one of these destructive processes advance towards the joint, the inclusion of the articular cartilage is sufficient to explain any increase of symptoms. When once the cavity of the articulation is opened by bordering ulceration the real mischief of the disease becomes more apparent, and the tissues within partake of the general disturbance. It is at this advanced stage of the affection that the symptoms exhibited are analogous to those dependent on destruction of the articulation by the more diffuse variety of strumous infiltration; and the various alterations that take place within the joint, and the tissues external to it, are so nearly identical with those I have already described, when adverting to this form of disease, that a repetition would be needless. The somewhat numerous cases of strumous affections of this particular joint which have fallen under my own immediate observation, induce a corroboration of the opinion that a correct diagnosis is oftentimes a most difficult and unsatisfactory undertaking. Detailed symptoms, which are looked for as the headlands to enable the Surgeon to arrive at a just distinction, are frequently wanting, or so obscured and mutilated by accompanying complications, that, even if existing, they are of comparatively little value as diagnostic signs. Frequent opportunities of observation at various institutions have also satisfied me that this particular affection of the knee-joint is by no means easily distinguishable in its earlier stages; and although the experienced Surgeon may occasionally be led to expect the precise nature of the disease, he cannot always be certain of the true condition till subsequent opportunities afford an ocular proof of the correctness of his surmises. The recognition, however, of this affection in its earlier ravages is not of importance for the present purpose, for it is not till the functions of the joint apparatus become seriously involved, and hopelessly incurable without operation, that the Surgeon attempts to discuss the merits of two distinct operative proceedings for the relief of his patient. But it is imperative that the Surgeon should be able thoroughly to appreciate the real conditions of a joint which is suffering disorganisation, and should be capable of offering an opinion to the sufferer which includes the best advice, not only as regards immediate safety, but ultimate comfort and convenience.

An amount of uncertainty and difference of opinion has always existed regarding, what may be termed, the ultimate treatment of a joint implicated by "white swelling." While some authorities have advocated recourse to the amputating knife at a somewhat premature stage of the affection, others, no less distinguished, have preferred waiting till time should more fully demonstrate the incurable nature of the disease; and thus while frequently "hoping against hope," and striving to avoid one extreme of practice, have fallen into another, and, perchance, a graver error.

The expression of a joint being irreparably destroyed is, frequently, paradoxical; and considering the variety of opinions that are entertained on this one disputed point it is not astonishing that so much misconception should so often arise as to the propriety of adopting decisive measures on those occasions, when chronic disease has involved for a

considerable period the articulation. It would be impossible to attempt to lay down any definite rule to be followed in every case; but be it observed that, when once the exact nature of a diseased joint is recognised, it becomes a less difficult matter to decide upon a precise line of treatment.

I believe the two most self-incurable affections of the knee-joint to depend upon a strumous or pulpy degeneration of the synovial membrane, such a condition as was first accurately described by Sir B. Brodie; and a strumous or tubercular state of the spongy articular extremities of the bones with subsequent inclusion of the articulation. No palliative treatment, as external applications and zealous attendance to the general health will be sufficient, permanently, to amend either of these conditions when once established. Consecutive inflammation, with suppuration and perforation of the joint, may, in a certain number of instances, accord to the patient a reprieve and, perchance, an escape from the knife; yet, I believe, a judicious operation, as resection of the vitiated articulation, will in general be the wisest and most satisfactory proceeding. Many, whose opportunities of observation have been limited, will, I am aware, object to the adoption of such measures as a general rule; but when experience dictates advantages and success, misapplied opinions and wedded adherence to ancient practices must, of necessity, succumb. Although, as I have before remarked, it would be impolitic to attempt to frame regulations to be observed in the treatment of knee-joints, the integrity of which have been seriously involved by the long existence of this special form of strumous disease, yet there is a tolerably distinct line of treatment which will, on numerous occasions at least, suggest itself to the essentially practical Surgeon; and, although every case presenting in a long experience of practice may be characterised by some peculiarity, yet certain features always exist and pre-eminently elicit the foremost consideration.

When disease has lasted for a protracted period, and its correct character has been surmised; when the destruction to the functions of the joint is complete, and no hope can be entertained of reparation proceeding in such a way as to afford to the patient a legitimate chance of an immunity from further encroachment, and a satisfactory recovery with a good and useful limb; when the retention of the decayed joint begins to annoy the system, and to give rise to fears that a similar affection may develope itself elsewhere, then, without doubt, the judicious Surgeon is bound to interfere, adopting measures decisive, but calculated to give to his patient as little deformity and inconvenience as possible. I am by no means disposed to gainsay the fact, that cases of extensive, and at one time apparently hopelessly, diseased knee-joints do not occasionally get well without surgical interference—yet these are exceptions; and while in a few instances a beneficial result follows, a far larger proportion sink through neglect and procrastination.

(To be continued.)

ON INJURIES AND DISEASES OF THE FINGERS.

By J. C. WORDSWORTH, Esq.

Assistant-Surgeon to the London Hospital and the Ophthalmic Hospital; lately Surgeon to the British Hospital at Smyrna, and on the Staff of the Army in the Crimea.

Injuries and diseases of the fingers, from their frequency, and the deformity and loss of function which so commonly result from them, assume an importance proportional to that of the parts involved. How common a thing it is to see persons minus a finger-end, or the entire finger, or possessing one worse than useless! Again, in Hospital practice, the frequency of cases requiring amputation of these valuable members is proverbial. Who can tell the agony which has been endured before the cases have advanced so far as to require amputation? And it is unquestionable that, in the great majority, early efficient treatment would have effectually prevented this sad result. Whence, then, comes this malpractice? In the greater part, no doubt, it arises from unwillingness on the part of the patient to submit to the momentary suffering of a free incision, under the pretext of waiting till it has been sufficiently "drawn by the poultice,"—generally a cloak for cowardice and irresolution. But surgeons are too much disposed to acquiesce in the patient's decision, or at most to insist on a mere prick with a lancet, from which no benefit results, and only confirms the patient's idea that it is not "ripe for cutting," and induces him to continue the use of the poultice, till accident or other circumstance leads him to suspect that things are not going on well, and he submits to an examination, which confirms his suspicion, and the bone is pronounced dead, and beyond hope of recovery. Such is the history of the cases which crowd the surgery of an Hospital. Of late years, there has been an extraordinary prevalence of whitlows affecting the hands; and, unless the cases meet with prompt treatment, the result has very generally been the loss of the last joint of a finger. It has too often happened that, on the patient's first appearance, the last phalanx has been found so compromised, that free incision failed to obviate complete necrosis, and the loss of the finger-end, at or above the joint, required. Under such circumstances, I have adopted for some years the practice of freely laying open the palmar surface of the finger, and carefully examining the condition of the bone. If separated from the surrounding structures only on one side, and but partially necrosed, I have been enabled to save the phalanx; but in other cases, where the necrosis has been more advanced, as shown by complete separation from the soft parts, but yet leaving the joint intact, I have broken off the necrosed part close to the joint, and left the soft structures.

In the young subject, the practice is easily effected at the epiphysis, and new bone will soon be reproduced, little or no maiming resulting. One of the first cases so treated was that of a young girl (the daughter of the gardener of Finsbury-square). She had suffered necrosis of the unguial phalanx of the right thumb: the cartilage being entire, the bone was broken at the epiphysis, and the soft parts brought together with wet lint. Rapid union occurred, and in a little time the bone was reproduced. Scarcely any deformity resulted, and she can now follow her occupation as a needlewoman as well as if nothing had happened. It is now about five years since, and no incurvation of the nail has occurred. At the London Hospital a large number of cases have been so treated by my colleagues and myself. The result justifies my saying that a very large proportion of the cases admits of its adoption with manifest advantage.

I do not pretend to claim credit for any novelty in this proceeding. My object in giving publicity to these observations is simply to record the advantages which have resulted in a considerable number of cases, by substituting it for the more usual course of amputation.

41, Finsbury-square.

THE LONDON PRACTICE OF MEDICINE AND SURGERY.

REPORT OF OPERATIONS PERFORMED AT THE ROYAL LONDON OPHTHALMIC HOSPITAL, MOORFIELDS.

FROM THE 25TH OF JULY TO THE 25TH OF AUGUST, 1857.

(Communicated by Dr. C. BADER, Curator and Registrar to the Hospital.

Lachrymal Sac.—Two cases of purulent discharge from the lachrymal sac, treated by the actual cautery; no diseased bone could be detected. In one of them (a child) the incision was commenced from a fistulous opening in the skin, and enlarged upwards. The ticket of a former case treated in this manner has been returned. The patient (a boy) has signs of scrofulous disease about him. The disease of the sac had been of three years' standing; the contents of the sac escaped at different periods by an abscess opening through the skin. There was at the time of cauterization (June 30th) regurgitation of purulent matter from the upper and obstruction of the lower lachrymal punctum. On the 4th of August the wound was completely healed, and according to the patient's own account the tears do not overflow "unless he is out in the dust."

Eyelids.—Two cases of nævus of the upper lid in children. In order to secure the whole of the nævus in one case a needle was first passed below it; then at right angles a double thread carried below it again, and each half separately tied beneath the needle first introduced, which was then withdrawn.

Removal of the palpebral edge of both upper lids, as far as regards the eyelashes; they were thought by their unevenness to keep up an irritation of the cornea. For entropium of both lower lids, removal of an oval piece of skin, with the corresponding portion of the orbicularis.

Case of Entropium of the right upper eyelid.—(Mr. Streatfeild.)—By a preliminary operation the palpebral aperture had been enlarged (at the outer canthus) so as to give a freer movement to the lids; this having succeeded, an incision was then made, about one line from and along the whole palpebral edge; then a triangular piece, comprising the whole thickness of the fibro-cartilage was removed; this piece had its base (about one line broad) at the skin and its apex near the conjunctiva. The skin incision was united by six fine sutures. The case when last seen was much improved.—One case of enlargement of both palpebral apertures preparatory to the above-mentioned operation for entropium, with the view of saving the eyelashes.

Strabismus.—Fifteen operations for internal strabismus have been performed. The tendons were divided subconjunctivally. It may be remarked that if more than the tendon is divided, the eye will nevertheless not become everted so long as the conjunctiva is spared.

Cornea.—Removal of part of what is called staphyloma corneæ. In this case it consisted of lymph, which was effused, organized, and extended on prolapsed iris; its most prominent part was excised with the canula seissors. One case of conical cornea, mentioned in the last report, underwent the second operation. The object of the former operation, to retain part of the pupillary margin in the corneal wound, has succeeded. Mr. Bowman adopted the same proceeding on the opposite pupillary edge, by which a pupil is formed, whose lower edge extends in a straight line from one corneal adhesion to the other, the remainder slightly arching upwards. In another case of conical cornea (in a young woman), extraction of the lens has been tried. Mr. Critchett saw a decided improvement result from the use of bi-concave glasses in a similar case where extraction had been performed, which induced him to make this experiment. The slight opacity at the apex of the staphyloma did not disappear after extraction was completed. The intimate connexion of a healthy lens with its capsule made its extraction in this case more tedious than in most cataractous lenses, where superficial softening facilitates their escape.—Case of a sailor (patient of Mr. Poland), where a deep yellow substance filled the anterior chamber hiding the iris, the eye otherwise appearing normal. This followed a blow fifteen years ago. The yellow substance was supposed to be fluid. On opening the anterior chamber with the broad needle, a very little fluid escaped, which consisted of decomposed blood: the yellow covering of the iris could not be removed.

Iris.—One case of dense opacity of the cornea at its upper portion, with complete adhesion of the iris to it; in this case the portion of iris close to the outer and lower edge of the opacity was drawn out and snipped off. In a similar case the piece of iris drawn out was left in the corneal wound.—Excision of about one-fourth of the iris at its outer part in a case of glaucoma, after the manner attributed to Graefe.—One case where a foreign body, which had pierced the cornea and iris at their lower part, could be seen lodged in the iris and projecting into the anterior chamber. A small corneal incision was made, and the moment the canula forceps tried to seize it, it disappeared behind the iris, where it remains at present.—One case of (so-called) adhesions of the iris to the capsule of the lens. According to some pathological dissections there are cases where the pupil is blocked up by pigment in its area, which is deposited on a membrane, the organized product of inflammation, which is attached to the posterior surface of the iris and its pupillary edge, and stretches across the area of the pupil. In the dissected eyes it appeared to press on the lens capsule, but was not adherent to it. In the present case a very small portion of the pupil at its upper and outer part was not blocked up, as was seen after dilatation with atropine. Opening the cornea with a broad needle, a spatula was introduced through this remainder of the pupil and behind the deposit, which without injuring the lens was lifted away from its anterior surface. The patient is still under treatment: further particulars will be given.

Crystalline Lens.—Nine extractions of cataractous lenses by an upper corneal section: in one case some vitreous humour escaped with the lens. One case of extraction, in which the pupil was entirely closed by exudation, the patient had suffered much pain, and the conjunctiva was inflamed. The corneal section had, on account of the patient's struggling, to be completed under chloroform. After breaking through the pupillary occlusion with the currette, clear lenticular matter was scooped out.—Three cases of cataract, treated with the needle, exposing the lens to solution.—Four cases of congenital cataract: two lenses were broken up with one, and two with two needles.—Five cases of linear extraction of the lens. In one of the cases Mr. Dixon operated on both eyes at the same time; the lenses were thoroughly broken up, then the corneal wound enlarged with the broad needle; part of the lenticular matter was carried away by the escaping aqueous, and part had to be scooped out. It is of importance not to wound the posterior capsule, which, if wounded, allows the vitreous to advance into the pupil, and to press the fragments of lens against the ciliary processes, setting up irritation of the eye. In one case of hydropthalmus of both eyes extraction was tried, with the view of admitting more light to the eye. During the escape of the lenticular matter and the aqueous their place was occupied by blood; none of the tissues but cornea and lens had been touched; the bleeding is attributed to the loss of pressure from within the globe.—Nine operations for removing a false membrane from the area of the pupil, which in some cases was done with one, in some with two needles. The sooner these membranes are removed, the more easily they are torn through; if the shreds of these membranes hang into the area of the pupil, they, having only one attachment, shrink.—Three cases where, after needle operation, part of the lens remaining had assumed a membranous, well-defined appearance. In these cases a corneal section was made, the membranous remainder of the lens seized with the canula forceps, and drawn out. The escape of the aqueous and the contraction of the pupil made it necessary in one case to postpone part of the operation. It is interesting in this case, that the atropine having been applied an hour and a half before the operation, the widely dilated pupil closely and suddenly contracted the moment the aqueous escaped.

Excision of the Eyeball.—The operation has been performed in the usual way in nine cases. This and some future reports will contain a short account of each case; because, as it is impossible at present to draw limits for the indication of the operation, it is, therefore, desirable to specify those cases in which excision has been performed.

Disease and Immediate Result.

Case 1.—H. H., aged 19. Perforating wound of cornea, iris, and lens; loss of vision. The enlargement, inflammation, and pain increasing, the sclerotic was opened at its most bulging part; a quantity of pus escaped. The relief being only temporary, excision was performed.

Case 2.—A. J., aged 55.—Ten years ago a dimness came gradually over the right eye, which one year later was followed by repeated attacks of inflammation, with severe pains. Within the last two years the same dimness has attacked the left eye, with occasional pain in it.

Case 3.—E. F., aged 58. Loss of vision by purulent ophthalmia; and for three months past repeated painful attacks of inflammation; the patient was unable to use the sound eye on account of the state of the diseased one.

Case 4.—M. A. B., aged 35. Analogous to Case 2; repeated attacks of inflammation.

Case 5.—J. R., aged 46. Injury of the left eye two years ago; he had to give up his work on account of the irritation set up in the right eye.

Case 6.—C. P., aged 24. Ophthalmitis with severe pain, enlarged globe and loss of vision.

Case 7.—M. J., aged 53. Sudden loss of vision in the right eye three years ago; lately it has become painful, with dimness and pain in the left eye.

Case 8.—J. D., aged 30. The right eye painful, vision dull; the left eye had been inflamed six years ago; the inflammation continued for three months, and ended with partial loss of vision; six weeks ago inflammation recommenced with severe pain continuing.

Case 9.—G. T., aged 38. As Case 1.

The preparations made on the day of operation, with the history of the cases and microscopical reports of the globe excised, and sections, are preserved at the Hospital, and are open to inspection.

Minor Operations *performed in the out-patients' consulting-room.*—Twenty cases of removal of small tumours in the

eyclids or their neighbourhood. Slitting up of the lachrymal duct in fifty-one cases, either for the treatment of diseases of the lachrymal puncta or canals, or for facilitating the approach to the lachrymal sac. Twenty-nine cases of probing the nasal canal, for the treatment of diseases of the lachrymal sac or nasal canal. Opening of abscesses in or round the eyelids in twelve cases. Removal of foreign bodies from the surface of the eye, fifteen cases. Three cases of purulent ophthalmia treated by scarification of the chemotic conjunctiva.

Total of major operations, 77 ; total of minor operations, 134.

HOSPITAL NOTES.

LINEAR EXTRACTION OF SOFT CATARACT.

That method of extraction of cataract to which, under the name of the "linear" operation, much attention has recently been given on the Continent, and especially by Graefe and his followers in Germany, has been practised with signal success in several cases at the Moorfields Hospital during the last few weeks. It is, as our readers will be well aware, no novelty there, since, under the title of extraction through a small opening, we have frequently before adverted to it. (a) The latter name is liable to objection, inasmuch as it gives no clue to the size of the opening made, and that of linear, denoting that the corneal incision is to be about a line more or less, is certainly preferable. We shall, therefore, in future employ the latter, and it will probably come into general use, when the operation shall be as widely known as it deserves. The case of a man on whom Mr. Critchett operated on Tuesday week afforded a striking illustration of its benefits. He was the subject of very impaired vision in the left eye, the consequence of a blow ; and in the right, which was his better one, by the aid of the ophthalmoscope, it was discovered that the retina in parts was detached. Still, with this eye he could see fairly, when suddenly the lens became opaque. He was thus reduced to a state of almost total blindness, and, although the nervous structure was known not to be healthy, it became exceedingly desirable promptly to get rid of the cataractous lens. The latter was of milky-white appearance, with a tinge of blue, and was equally opaque in all parts, With a broad needle Mr. Critchett made a puncture on the outer side of the cornea, about a line in width, and with the same needle lacerated the capsule, and broke up the lens. The lenticular substance itself proved to be less opaque than was its capsule. A channelled curette having been introduced, the whole of the fluid part of the lens escaped ; and lastly, with a little manœuvring, the capsule itself passed into the aperture, and, being seized by forceps, was removed bodily. The pupil was now perfectly clear. With a blunt probe a small portion of iris, which had prolapsed, was tucked back, and the pupil was then perfectly round. The man at once exclaimed that he could see. No inflammation whatever followed the operation, and when brought before the clinical class, three days after, there was nothing about the eye by which it could have been known that it had been operated on. With the aid of a glass the man could see about as well as he could prior to the formation of the cataract. In a case in which Mr. Bowman employed this method of operation in a young girl, about a month ago, the result was just as perfect and nearly as speedily attained as in the preceding. If the capsule be not opaque at the time of the operation, no attempt is usually made to remove it. The cases deemed suitable for this method are those in which the lens is soft and without a nucleus. We have been informed that, in Paris, M. Demarres even ventures to attempt to remove dense nuclei by it, catching them in the extremity of the curette ; but such practice is, we believe, deemed to be too uncertain of success to be adopted at Moorfields. It would necessitate a larger opening than is usually made, and, as it is impossible to always estimate correctly the dimensions of the nucleus, would probably, in not a few cases, result in disappointment. If the nucleus be left, it is very liable to fall down behind the iris, and become a source of irritation either to the ciliary bodies or the retina. In cases for which either of them are adapted, the linear extraction has the great advantage over the method by solution that it completes the operation at once, thus preventing the risk of local or general disturbance ensuing.

(a) The credit of having been the first to practise linear extraction appears to belong to Mr. Gibson, of Manchester. (See Medico-Chir. Trans. vol. v.) He did not, however, complete the operation on the same day, but allowed an interval of a week to elapse between the breaking up of the lens and its removal.

RESTRAINED ACTION OF THE DIAPHRAGM AS A SYMPTOM OF PERICARDITIS.

Dr. Barlow, in commenting on a case under his care in Guy's the other day, directed the attention of his class to the important indication furnished by the unduly restrained action of the diaphragm in certain cases of thoracic inflammation. He had especially noticed it in pericarditis, and more than once it had helped him to a diagnosis. The subject of pericarditis, anxious to avoid the pain caused by any movement, holds his whole chest as immovable as possible, but especially restrains the actions of the diaphragm. In the case of a boy who was admitted with this affection, it was found that he had tied a broad belt tightly round his body, in order no doubt to conduce to this end. Another case, Dr. Barlow stated, had impressed itself upon his memory in which this symptom was very well marked, and in which yet no pericardial rubbing sound could be detected. Death took place, and at the autopsy the pericardium was found full of pus, thus accounting for the absence of the friction sound.

VERY OBSCURE SYMPTOMS IN A CASE OF CANCER OF THE DUODENUM.

A man, aged 66, was admitted into King's College Hospital, under the care of Dr. Budd, with the following symptoms :— He was exceedingly feeble and anæmic, but had not lost much flesh. He complained of pain after food, and occasionally vomited about an hour after a meal, but not often. He stated that he had lost some blood by the bowels, but it did not appear that either this hæmorrhage or the irritability of the stomach had been such as to account for the state of debility which he presented. No tumour could be felt in the abdomen, though it was once or twice fancied that there was some little hardness just below the liver, where also he was tender on pressure. After being under care a little time, anasarca in the lower extremities began to show itself, and subsequently the œdema became general, and increased to such a degree that no manipular examination of the abdomen could be made. It should be stated that he had worked in vermilion, but there were no indications of mercurial poisoning. His urine, the heart, etc., had been examined, but no cause for the anasarca had been found. It appeared to proceed from sheer poorness of blood, and the diagnosis as to the original mischief was surrounded by much obscurity. Death took place about seven months from the commencement of his illness. At the autopsy a large tract of the duodenum, commencing about three inches below the pylorus, was found involved in an ulcerated cancerous stricture. The gall-bladder was lost in a mass of cancer, by which the bowel and the liver were closely connected. At this part the liver was softened. The heart was flabby and soft, but only in common with the other muscles. The malignant disease of the duodenum had evidently been the starting point of the man's illness, and was, indeed, almost the sole organic mischief existing, and the singular circumstance in the case was that it had revealed itself by such very ill-marked symptoms. One would have expected in association with such disease that the vomiting would be severe and lasting, that great pain would be complained of during the passage of the food, and that the emaciation would be very well marked.

RAPID RECOVERY AFTER PERINEAL SECTION.

An example of unusually rapid convalescence after the operation of perineal section for stricture has just occurred in the case of a man under Mr. Fergusson's care in King's College. The stricture was close, and a very obstinate one, having existed for upwards of thirty years. The operation was performed in the usual manner upon a grooved staff. A flexible catheter was passed over a rod screwed to the catheter, and was retained in the bladder for seventy-two hours. The man was up on the tenth day, the wound being then soundly healed. He could pass his urine in a full stream without pain, and a No. 10 was readily admitted.

TUMOUR CONNECTED WITH THE UPPER PART OF THE FEMUR.

A case which is exciting much interest, and has been ex-

amined by many Surgeons, is now under the care of Mr. Curling in the London Hospital, and is well worth the attention of any one who may have an opportunity of seeing it. It is that of a man named Daniel Twigg, in whose left thigh is a tumour of considerable magnitude, apparently connected with the upper part of the thigh-bone. He is about 40 years of age, thin, and rather pale, but not markedly cachectic. Just below the groin, and over the outer part of the limb, there is a general enlargement, which is very perceptible to the eye. On handling it this swelling is found to consist of two different elements. In the groin are several enlarged glands, and a mass about the size of a small orange, which is almost as hard as bone, and which some believe to be firmly attached below to the bone, others holding that it has a small area of motion upon it; beneath, and to the outer part of this mass, is a diffused deeply placed swelling, which appears to involve the whole shaft of the bone, and of the character of which from its position but little can be ascertained with certainty. There is very little tenderness in the swelling at any part. On moving the thigh a sensation of grating in the joint, as if of two smooth surfaces of bone on each other, is easily produced. This causes little or no pain. The femoral vessels are not perceptibly lifted. The man states that the swelling has grown quickly within four or five months. The first pain was in the knee, then it affected the hips of each side, and subsequently he noticed swelling about the left. The most singular part of his story is, however, that he avers that some years ago he had a tumour at least as large as this is about the opposite hip, and that it disappeared spontaneously. In partial confirmation of which statement, there still exists in the fascia lata of the right, close to the great trochanter, a hardened lump of small size which feels like bone, and the head of the bone is displaced on the iliac dorsum. He states that he was under care in an Hospital for that affection, and that he has ever since been slightly lame. He is very hopeful that the present tumefaction will disappear, as the other did so.

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Medical Times & Gazette.

SATURDAY, SEPTEMBER 5.

SYPHILIZATION.

SYPHILIS AND SYPHILIZATION—THE BANE AND THE ANTIDOTE!

What Vaccination has done for humanity in the case of small-pox, that Syphilization is to do in the case of syphilis. Dr. Turenne, its enthusiastic inventor, sees, in a beatific vision, the horrid species, lues venerea, "improved from off the face of the earth" under the force of his discovery. In the meantime, and until this happy consummation has arrived, syphilization may be made to serve humanity in two ways. First, as a prophylactic; the individual being well and *scientifically* imbued with the virus of syphilis, is rendered ever after proof against all the miseries of this social evil; he is syphilis-proof. Secondly, the remedy drives out from the constitution the syphilis which it finds present there,—the fire burns out the fire,—and likewise renders the constitution impermeable to the assaults of the evil—*similia similibus*. This is setting a thief to catch a thief, with a vengeance!

But what is syphilization? The term an author uses does not invariably convey, in all clearness to others, the idea which was present to his mind when he adopted it. To prevent misunderstanding he therefore is accustomed to "define his terms;" and this must we do here for Dr. Turenne.

By comparing syphilization to vaccination, we readily arrive at the meaning of the word. The system is brought into a certain condition by the introduction of vaccine matter into it; this is vaccination. The system, again, is filled to saturation with the virus of chancre by inoculation; this is syphilization. The one arms the body against variola; the other arms it against syphilis.

The processes, however, by which these happy events are brought to completion are not equally simple. A microscopic puncture, an infinitesimal dose of vaccine matter, a satisfactory pustule, a few days' constitutional uneasiness, and a laudable eschar—these are the moderate elements of a respectable vaccination. But considerably more complicated is the operation by which the system is worked up to chancre-proof pitch. No single inoculation of the venereal virus suffices to this end. Chancre after chancre must be established; day after day, week after week, ay! even month after month, must the operator persevere, until at last the signs appear which declare that the system has got its *quantum suff.*: and these longed-for signs are: That the body no longer responds to the inoculator's intention; he may insert his virus, but he cannot any more produce a chancre. The system is implcted. The man is syphilizated!

Thus it seems that the human individual does not yield kindly to this influence, as it does to the insertion of the vaccine, but comes into it slowly and sulkily, as one might say. Step by step only is the friend or enemy let in, and vigorously does the natural constitution hold its own against the medicinal intruder.

Yet we are told that the grand point in the operation is to saturate the body rapidly;—"When 'tis done, then 'twere well it were done quickly;" and to gain this end the practitioners of this novel art do not all operate alike. Men, of course, will differ on such minor points. The Scandinavians and the Ultramontanes, Dr. Boeck and Dr. Sperino, etc. have all a like intent, but they work out the conclusion somewhat differently. One may, perhaps, content himself with a single chancre every other day, or every third day, until he finds the business is complete. Another, more heroically framed, will not be satisfied with less than a matter of three or four new chancres every three or four days, and some practise six to ten twice a-week, thinking thereby to come more perfectly and quickly to their object. One, again, prefers the abdomen for the scene of his operations, and one the thighs and the arms; and another indifferently plies his work at either part. But, however they may differ in these trifling minutiæ, they must persevere boldly in the work—they must not desist until their object is attained. Things are going well, they know, when the last-made chancre shows a diminished vigour in comparison with its predecessors; and this, we are told, it almost invariably does—gradually, like the fading away of a mountain echo, does the power of the virus pass off, until, at last, the operator is rewarded in full by finding that his patient is completely unimpregnable to the most undeniable virus-inoculation. His operation produces no effects. The skin is no longer responsive to the insinuating lancet. The individual is in a state of syphilization!

Perhaps some curious person may here inquire how many chancres are required to effect a syphilization. He will, of course, infer from what has gone before that the number is not a fixed one; but he may like to hear what, in the general run of things, has been the quantity which the operators have found necessary. It is not easy to give any definite results on

this point, but any one may calculate roughly, and nearly enough for all purposes, by recollecting that syphilization requires on an average *half-a-year* for its development, and that the most renowned operators establish on their patients from between six to ten chancres twice a week during the *course*. 683 inoculations (only 90 of which proved abortive) were required in one of Dr. Boeck's cases to dislodge an obstinate *psoriasis syph.;* but then the patient had been previously salivated, and previous mercurial treatment, they say, is found to interfere seriously with syphilization. Under all circumstances, however, the inoculations requisite must be counted by hundreds.

From this we see clearly that human nature does not, even under favourable circumstances, respond kindly to this process. Sometimes it is utterly rebellious; and so, "non cuivis," not to every one is the capacity for syphilization granted.

Now it might be thought, by the inexperienced, that the production of some hundred chancres in the human body during the course of a few months would excite disturbances of a lively and unpleasant nature in the economy. Nothing of the sort! and let this be a lesson to *à priori* reasoners. Disturbances! why, the patients actually become fat and jolly under the process, and, what is equally surprising, so far from entering protests against the treatment, they court an operation which is to produce so remarkable a result; like those happy lambs of Pope, they—

"Lick the hand just raised to," etc.

Other reflecting souls, again, may disturb themselves by lamenting over the sad, Lazarus-like condition into which these many sores must sometimes plunge their victim. They may conjure up scenes of erysipelas, and phagedæna, and extensive sloughings and suppurations. But let them not despair! *These* are all bugbears of the imagination. What is the use of reasoning in matters Medical, from what has gone before in old routine? *Le vrai*, in such matters, never resembles the *vraisemblable*. Should any signs of phagedæna, any ugly aspect come upon the surface of the chancre, your remedy is still there the same,—*make more chancres!* The phagedænic look is an indication for perseverance in the same path. Stick to your inoculating lancet with a Sangrado-grasp, and you will soon extinguish these intercurrent maladies.

Again, the *à priori* philosophers might object to the circumstance, that the individual must bear upon his person for the rest of his life a very unpleasantly-figured condition of the skin. Four hundred cicatrices on the abdomen and thighs, they might suggest, would not be either pleasant or (under the consideration of their origin) respectable and honourable scars to bear upon one's body: "*Porter le cachet du syphilis sur les épaules*," is not what folks would like in this country, at all events. In answer to this objection, however, we have the satisfaction of finding, that the ulcerations leave very insignificant reminiscences of the past upon the surfaces where syphilization was practised. All is made pleasant here.

What are we to say to all this? Ordinary pathological principles—if there be such things—are evidently abrogated for the nonce, to introduce the happy event of syphilization into the domain of medicine. If we are to believe all that has been, and to appearance honestly, told us about this curative agent, we have assuredly a strange mass of novel facts to ponder over. Syphilization imparts, to the human body, immunity from syphilitic infection; it removes existing syphilitic diseases—primary, secondary, and tertiary—and it does not injure, but rather improves the health of the person subjected to the process. Men of note in Italy and in Northern Europe have experimented largely in the matter, and these are their deliberate assertions.

The Frenchman has not experimented, but he totally repudiates these conclusions theoretically. In England we have neither repudiated nor experimented, but have hitherto treated the subject with a calm indifference. True, we are not much given to enthusiastic impulses; and, certainly, to ask any one to give implicit credence to such rare things as these, on the evidence of a second person, in a foreign land, is to make a heavy demand on his credulity. But then, on the other hand, Drs. Boeck and Sperino have a right to point to their labours, and to ask doubters and disbelievers to repeat their experiments; and the subject is clearly one which can only be decided by an appeal to facts.

Now here the difficulty meets, if it does not beat us. Before a man commences an operation of this magnitude and duration, he must satisfy his conscience that "le jeu vaut la chandelle." It is not surely a sufficient warrant for his thus operating, that mercury is not so satisfactory a remedy for syphilis as it was once thought to be. He must be satisfied that the good which shall result will counterbalance the certain evil which must be incurred. Most careful men will, we should imagine, have a natural shyness at undertaking experiments of the kind here spoken of; and hence we shall not very readily arrive at any practical conclusions on the subject in this country. We cannot but admire this caution; and should any one feel an itching to see for himself how the remedy works, we should advise him, before indulging in the experiment, candidly to examine himself whether, if he were in the case his patient is supposed to be, he would submit to the treatment he is thinking to inflict on another. A remedy may be worse than the disease.

Years must pass over before any certain facts can be arrived at concerning the permanent and enduring efficacy of the remedy. The investigation also is itself a very complicated one, and many of the results described may be correct without the conclusions deduced therefrom being admitted. Indurated chancres no doubt heal up under syphilization, but they heal up also when no specific treatment at all is used, when rest and proper diet are enforced. Moreover, we do not know whether the mere counter-irritation produced by the formation of some hundreds of chancres may not have some direct influence over the cure of the original disease. We have seen a most obstinate case of cutaneous syphilis, which had resisted all sorts of treatments, rapidly cured by an attack of typhus fever, which the patient caught in the Hospital. That the patients do not suffer from, but improve in health under the treatment is explicable enough when we consider the class to whom most of those who have hitherto been experimented upon belong, and the wretchedness and misery which is their lot; in hospital these patients are comparatively in clover. What length of time, again, syphilization renders an individual free from all possibility of infection is not certain; this is a fact which only time can show, and which has yet to be shown. That female patients have courted such an operation, means simply, we suppose, that they were happy to find themselves in comfortable quarters for six months, and to know that they might in future practise their sad *métier* with impunity. We must conclude by saying, that altogether we have a very unfavourable opinion of this means of cure; and until we have some stronger proofs to the contrary than the history of the cases above referred to affords, we shall consider it as a most cruel and unjustifiable mode of treatment. We have referred thus briefly to the subject because we fancy that the operation has been lately recommended for trial here in much too light and inconsiderate a manner.

As a prophylactic agent, we need say nothing of syphilization. To subject a perfectly sane individual to the process

solely to render him impermeable to the venereal virus, is a proceeding utterly repugnant to morality, and admits of no discussion.

THE WEEK.

We learn with very great regret that the Irish Poor-law Commissioners have partially confirmed the very shabby and disgraceful resolution of the Kenmare Board of Guardians to which we alluded last week. It will be recollected that this Board passed a motion to reduce the salaries of the Medical officers to the dispensaries and workhouse in that district from £100 to £80 per annum, and that the proposal called forth a most eloquent, and we should have imagined, unanswerable appeal from Dr. McCarthy, one of the Physicians whose salary was to be so reduced. But it appears that the love of saving a few pounds overcame all other consideration, and the salaries were accordingly reduced. The Irish Poor-law Commissioners have ratified the decree, although not to the full extent; for, while there were three Physicians, Dr. McCarthy, Dr. Taylor, and Dr. Maybury, whose salaries it was proposed to cut down uniformly from £100 to £80, the Commissioners have confirmed the decision with regard to Dr. McCarthy, but they have diminished the salary of Dr. Taylor by only £10, and they have allowed that of Dr. Maybury to remain as heretofore. This partial proceeding almost seems to justify the suspicion that Dr. McCarthy was singled out for persecution in consequence of his manly appeal on behalf of himself and his ill-used brethren; and the belief is prevalent that if he had remained silent on the recent occasion he might have been better treated. But we think that he was fully warranted in denouncing the pitiful conduct of the Kenmare Board, and that the thanks of the Profession in the three kingdoms are eminently due to one who has shown himself to be a champion, and unfortunately a martyr, in the cause of Poor-law Medical Reform.

We have received the Prospectus of a new Society, entitled the "National Association for the Promotion of Social Science;" and the first meeting is announced to take place on the 12th October at Birmingham, under the Presidency of Lord Brougham. The object of this Association, in the language of the Prospectus, is, "to aid the development of the social sciences, and to guide the public mind to the best practical means of promoting the amendment of the Law, the advancement of Education, the prevention and repression of Crime, the reformation of Criminals, the establishment of due Sanitary regulations, and the recognition of sound principles in all questions of Social economy." The proposed mode of action is to bring together, once a year, the different Societies and individuals who are interested in furthering any of these objects. Among the General Committee we observe the names of several distinguished members of the Medical Profession, and, among others, those of Sir James Clark, Sir John Forbes, Dr. Conolly, Dr. Babington, Dr. W. Farr, Sir Charles Hastings, Dr. Southwood Smith, and Mr. Simon; and among the laity who are friends of the Profession, we find the names of the Right Hon. Mr. Cowper, the Right Hon. Mr. Napier, Mr. Headlam, and Mr. Hawes. In the Department of Public Health, Lord Stanley is President, and the Committee comprises the names of some of the most active promoters, both lay and Medical, of the objects of sanitary science.

A fatal accident took place a few days since, when three men were instantaneously killed by the poisonous gases issuing from a large sewer in Whitechapel. It is matter of wonder, not that such accidents occasionally happen, but that they do not occur with greater frequency. The persons who work in the sewers are so much inured to this very dangerous occupation, that the mephitic vapours appear to be almost powerless against them: but such is really not the case; and their frequent immunity is due to the fact that they usually breathe the noxious gases in a diluted form, but when they enter a concentrated atmosphere of poison they are instantly destroyed. It should be known that sulphuretted hydrogen, in a concentrated state, like other poisonous gases, does not enter the lungs at all, but causes immediate closure of the glottis, and consequent asphyxia and death; but when largely diluted with air, it enters into the system, producing its poisonous effects much more slowly; and it would almost seem that, from the effects of habit, many individuals are proof against its influence. It is only by such a supposition that we can account for the fact, that the persons who habitually work in sewers are often not more unhealthy than other men, and that those who are engaged in gas-works also enjoy a fair share of health. Such tolerance of poisonous agents probably belongs to the same category as opium-eating and tobacco-smoking.

The payment of Coroners, which has lately been a source of much unseemly contention between these functionaries and the local Magistrates, is likely to be placed on a better footing than has hitherto existed. At a recent meeting of the Middlesex magistrates, the Chairman proposed that the Committee for Accounts and General Purposes should report to the Court as to the desirability of the Coroners being paid by adequate salaries instead of fees, and if the Committee were of opinion that such a change was necessary, the proper steps would be taken to further it in the next Session of Parliament. That such a change is called for there can be no doubt, for the functions of the Coroner are now performed in a manner which is eminently unsatisfactory, inquests being sometimes held which are not strictly necessary, and on the other hand, they are often omitted when the circumstances imperatively demand investigation. If the subject should be brought under the notice of the Legislature, there are many other points which require revision as to the details of holding inquests, which at present are not altogether consistent with the ends of public justice, or favourable to the establishment of sound principles of Medical Jurisprudence. To one of the Coroners for Middlesex is justly due the merit of appreciating the value of Medical evidence in these investigations, and of carrying through Parliament a measure for the fair remuneration of Medical services rendered to the Coroner's court. It remains to carry out the same principle still further, by training Medical men especially for such services, and thus systematizing the great amount of scientific facts which the proceedings at inquests must necessarily disclose.

REVIEWS.

Animal Physics; or, the Body and its Functions familiarly explained. By Dionysius Lardner, D.C.L. With 520 Illustrations. Pp. 705. London: 1857.

Dr. Lardner, so well known in connexion with the publication of numerous treatises on literary and scientific subjects, here enters upon a field of inquiry which must be new to him, but in which he exhibits his well known zeal and enthusiasm. The work before us embraces a discourse on anatomy, human and comparative, and the functions of the organs, both in man and in the lower animals, are fully explained. The relation of physiology to general physics is a department coming strictly within the sphere of Dr. Lardner's personal labours, and is treated with great ability. We should especially refer to the sections on muscular actions, and on vision, hearing, and the voice. But the whole domain of animal life is

comprehended in this volume, and every part is illustrated with plates, which are very well executed, and copied from the best authorities.

On the Medical Estimate of Life for Life Assurance. By Stephen H. Ward, M.D., Physician to the Life Association of Scotland. Pp. 71. London: 1857.

The theory and the practice of life assurance are subjects closely connected with hygiene, and the success which has attended life assurance societies is in great measure due to the careful examinations and reports upon cases made by their Medical officers. The Medical literature, however, upon the subject is rather meagre, and hence there is an absence of a distinct code of fixed principles which may guide referees, actuaries, agents, and others in determining the eligibility of cases offered for their acceptance. Dr. Ward's book is well calculated to supply the want which exists; it is written with great care, and shows extensive research, and it may be consulted with great advantage by all those who desire to make themselves acquainted with the principles on which depends the Medical estimate of lives for assurance. The predisposing causes of disease, as those connected with habits, temperament, constitution, hereditary taint, configuration, occupations, and the like, are set forth by Dr. Ward with great perspicuity; and these are the points which chiefly come under the notice of the Medical referee. The detection of actual disease cannot be described in books, and must be left to the tact and science of the Medical examiner; but the circumstances which point to rational conclusions as to the probable duration of life are now pretty well understood, and Dr. Ward has collected them together in a very able manner.

Manual of Technical Analysis: a Guide for the Testing and Valuation of the various Natural and Artificial Substances employed in the Arts and in Domestic Economy, founded upon the Handbuch der Technisch-chemischen Untersuchungen of Dr. P. A. Bolley. By Benjamin H. Paul, Ph.D. F.C.S. Pp. 426. London: 1857.

At the present day, when the science and the art of chemistry are attracting the attention of all classes of society, such a work as that now before us is eminently useful in pointing out to the beginner the simplest principles of chemical manipulation, and in furnishing to the advanced student the results of refined analysis. The early part of the book is devoted to the explanation of the most common processes of the chemical laboratory, such as solution, precipitation, filtration, evaporation, distillation; passing on to the more difficult operations, such as the use of the blowpipe and the weighing of gases. A list of reagents is given, with their respective uses, and then there follows a copious detail of substances which the art of the chemist is able to detect, and the means by which he is guided in his operations. The analysis of natural and artificial substances comprises metals, poisons, dyes, pigments, coal, textile fabrics, and a host of others; and some useful tables are appended upon hydrometry, saccharometry, and the relation between the weights and measures used in France and in England. Altogether, the book contains a great variety of useful information; and its accuracy in detail is sufficiently guaranteed by Dr. Paul's extensive knowledge of chemistry, acquired by several years' experience in Professor Graham's laboratory.

PROGRESS OF MEDICAL SCIENCE.

Selections from Foreign Journals.

ON THE ELIMINATION OF SULPHURETTED HYDROGEN BY THE LUNGS.

By M. CLAUDE BERNARD.

M. C. Bernard desires to contribute to the solution of the question, why it is that sulphuretted hydrogen, which can be swallowed in large quantities with impunity, will cause the death of a medium-sized dog, when breathed in the proportion of $\frac{1}{800}$, and of a horse, when in the proportion of $\frac{1}{200}$. Two hypotheses may be raised. Either it is not absorbed in the alimentary canal, but digested, and its peculiar effects neutralised; or, after becoming absorbed, it is modified, and eliminated before it can reach the arterial system: the arterial blood being, in fact, the immediate vehicle of all physiological and toxical action, inasmuch as it is it which passes directly to the capillaries, where all organic changes take place. In the event of this last hypothesis being the correct one, we have to determine by what organ the elimination is accomplished. The pulmonary surface would seem best adapted for the exhalation of this gaseous poison; so that it would sometimes perform the part of an absorbent surface, as when the sulphuretted hydrogen was contained in the air, or of an exhalant, when this substance existed in the blood. This example, which is by no means an isolated one in the economy, would seem to prove that the mucous surfaces, often indifferent in themselves, have no special action in relation to a substance, beyond that which is determined by the conditions under which such substance is presented to them.

M. Bernard performed numerous experiments in order to show that the elimination really takes place by the lungs. It was found that after throwing in the gaseous sulphuretted hydrogen, or a saturated solution of it, into the jugular, paper soaked in acetate of lead held at the nostrils became speedily blackened, and that almost immediately the substance entered the blood. This was repeated at intervals, several times, without the animal seeming to suffer inconvenience. No ill effects result, because the substance is eliminated before it can reach the arterial system; while, when it is inspired with the air, the absorbed sulphuret is carried by the pulmonary veins directly into that system. In order to show that pulmonary elimination also takes place when the gas is introduced into the digestive canal, sulphuretted hydrogen was also injected into the stomach and into the rectum. When thrown into the stomach the paper was found blackened, after some seconds; but with respect to the rectum, this effect was not observed until 65 seconds after, the elimination not being completed under five minutes.

Owing to the facility of its elimination, M. Bernard suggests that sulphuretted hydrogen might possibly serve as a measure of the rapidity of certain physiological actions, and especially of the phenomena of absorption and circulation. Two experiments are related in illustration; 3 cubic centimetres of saturated solution of sulphuretted hydrogen were thrown into the jugular vein, and the first spot appeared on the paper at the end of three seconds. The same quantity was thrown into the femoral vein of the same dog, and the earliest manifestation took place only after six or seven seconds. When the quantity injected did not exceed that mentioned above, two or three expirations, and sometimes a single one, sufficed for the complete elimination of the sulphuretted hydrogen.

The question arises whether, when we introduce sulphuretted hydrogen either into the natural channels of absorption, or into the veins, the whole of it becomes eliminated by the lungs. Doubtless, by accurate measurement, this could be determined, but the probability is that it is not the case. Independently of other channels of elimination that may exist, it is probable that some of the sulphuretted hydrogen remains in the blood in the state of sulphur. Thus, when small quantities of the sulphuretted hydrogen are injected at a point as distant as possible from the lungs, no pulmonary elimination takes place, probably because there has been time for the whole to become modified and changed into sulphur before reaching the lungs. It was found that injecting small quantities into the carotid was followed by no elimination, until the repetition of the operation gave rise to a certain amount of saturation. Another proof that some of the sulphuretted hydrogen is retained in the blood, probably as sulphur, is found in the fact that in blood drawn from the animal, and manifesting no odour of sulphuretted hydrogen, the addition of hydrochloric acid, and the application of heat, lead to the disengagement of this gas.

The experiments made require to be repeated and multiplied, in order that the action of sulphuretted hydrogen on the economy should be completely studied. An important fact has, however, been thus far determined, viz., its great tendency, when circulating in the blood, to become eliminated by the lungs; and it may be asked whether such elimination is any way related to the therapeutical effects attributed to sulphureous medicines in certain affections of the chest.—*Archives Générales*, tom. ix. pp. 129—135.

FRACTURE FROM MUSCULAR CONTRACTION.

At the Paris Medico-Practical Society, M. Perrin adverted to the case of a young student, aged between fourteen and fifteen, and of a lymphatic constitution, who about a year since fractured the lower third of the humerus while forcibly throwing a ball into the air. The youth has recently met with precisely the same accident, brought about by exactly the same circumstances. This must surely be looked upon as a case contradictory of the opinion that denies the possibility of fracture being produced by muscular contraction alone. M. Gaide observed that the fracture may have taken place in the callus, as the definitive formation of the callus had not taken place in a year. The case, moreover, rather confirms the opinion of those who deny that muscular contraction can alone produce fracture, inasmuch as the recurrence of the accident in the same youth leads to the belief in the existence of some change in the osseous substance. M. Simonot related the case of his own brother. Serving in the naval school on board a vessel anchored at Brest, being sixteen years of age, and in good health, he was one day seated on a low seat with his legs behind him, and consequently in a state of forced flexion. Called to, he arose suddenly, and feeling severe pain in the right leg, (without anything having struck against it,) accompanied by a cracking sound, he fell down on his back. Great swelling followed, so that it was only after some days that a fracture of the patella could be distinguished. He remained at home for a year, but six weeks after he had resumed his post, the accident was reproduced while walking on deck. Seven years later, no relapse having occurred in the meantime, the same pain and cracking recurred, and he was only prevented from falling by a person who was walking behind him. Cured again, five years after the bone was again fractured, under the influence of a shock caused in the ham by a dog running behind him. All these fractures were healed within the normal period, and in none of the instances was the callus implicated, the lower fragment being always the portion of the patella implicated.—*Union Méd.*, No. 69.

[In a series of papers published by Dr. E. Gurlt, in the Berlin *Deutsche Klinik*, Nos. 25-29, 1857, the reader will find an analysis of all the cases of fracture from fragility of bones or from muscular action, both British and foreign, that have been published.]

ON BED-SORES IN FEVER.

By M. PIORRY.

In the early stages of typhoid fever there are observed about the sacral region, and sometimes towards the buttocks, or even still higher near the lumbar region, small, red, prominent, rounded spots, the summits of which exhibit phlyctenæ containing droplets of lactiform serosity, which afterwards takes on the characters of pus. When the fæces come in contact with these little pustules, and the points where they are placed still continue to be subjected to pressure, the phlyctenæ become ruptured, and the subjacent parts, becoming greyish or blackish, and covered with false membranes, are transformed into gangrenous ulcers, which from the point of departure for putrid resorption, which aggravates the disease, and hastens it towards a fatal termination. The different phases of this "septicemic dermitis," as M. Piorry terms it, are in exact relation to the different degrees of the general affection, the gravity of which it indicates.

In the treatment of this dermitis the greatest cleanliness must be observed. As long as the little pustules remain intact and unulcerated they may be left to themselves; but as soon as ulceration takes place, the first care must be to prevent the contact of the air, to remove the liquids as fast as they are deposited, and especially to prevent the fæces and urine remaining in contact with the parts. As soon as a gangrenous spot, a yellowish-grey ulcer, or the deposition of a reddish serosity under the epidermis is observed, M. Piorry at once cauterises the entire surface. This he does, too, when a gangrenous smell is present, or when the skin is black and insensible. If the affection of the part is very superficial, he passes a pencil of nitrate of silver over it, taking care to leave it in contact for some seconds, or even a minute. This caustic possesses the advantage not merely of destroying the injured tissues, but of forming an eschar, which, by opposing the contact of the air, prevents, to a certain extent, the putrefaction of the subjacent parts. But when the mortified layers are larger and deeper placed, when they are surrounded by an ill-conditioned œdematous engorgement, and the affection puts on the appearance of extending, M. Piorry applies the actual cautery heated to whiteness to the whole of the mortified tissues, up to where they are bounded by healthy parts. If eschars are already formed, he seeks to arrest their decomposition by cauterisation, by preventing the contact of air, and by the application of antiseptic liquids as creosote, alcohol, tannin, oxide of sodium, etc. In order to prevent absorption as much as possible, the organic detritus is washed from the surface of the ulcer very frequently. This resorption is further sought to be prevented by incising and detaching the eschars, always avoiding a rupture of vessels, which would favour, in place of preventing, the resorption. If hæmorrhage does occur the surface is cauterised anew, and lotions applied; while when counter-openings are required the incised surfaces should be at once cauterized, and cleaned out by numerous injections. Incisions of the living parts must be avoided as much as possible, these exposing the surface of the wound to the danger of the penetration of putrid fluids. For the protection of the parts against the action of external agents M. Piorry resorts to some of the forms of plaster, or to some inert powder, especially cinchona. This, however, should be applied in a layer thick enough to form a very soft plane of contact, preventing all painful friction.—*Gaz. des Hôp.* 1857, No. xiii.

FOREIGN CORRESPONDENCE.

FRANCE.

[From our Paris Correspondent.]

PARIS, 31st August, 1857.

I HAVE observed this summer, and a great number of Physicians have also noticed, several curious changes in the diseases of the season. Since the beginning of June, intermittent fevers of different type, and of very obstinate nature, have shown themselves, particularly among children, debilitated persons, and soldiers. In many cases of that disease there was a regular anæmia, with pallid complexion, want of strength, dizzy head, and looseness or costiveness of the bowels. Sometimes the fever was complicated with gastric symptoms; in almost every case it ran its course, with complete fits, difficult to check with the different antiperiodic remedies, and even with quinine. I must say that intermittent fevers are not observed in our Metropolis with such characters; generally they form a very light disease, which appears and disappears with the spring. The last three years have been remarkable for the increasing number of agues; but the present year stands foremost in the production of these phenomena.

Now, it may be asked, What are the causes of such a change in the pathological constitution? I know several Physicians who are prone to attribute these quotidian or tertian agues to the great works which have for five years been changing the soil of this large city, removing houses from one place to another, opening large streets, building palaces, digging drains, etc. It may be that such are the causes of intermittent fevers in new countries, where towns are built upon new ground; but in Paris, where there is not a square foot of vegetable ground, I do not believe in the above indicated etiology. Besides, if that cause were the true one, the army which lives in the forts would not be subject to the disease, and the parts where the greatest buildings are erected ought to be most exposed to the ague. Such is not the case. It seems to me more prudent to admit an unknown cause of the great pathological change that is now so much observed, that in the records of science we may see examples of epidemic intermittent fevers in countries where there exist no measles, no malaria, no paludic influence of any sort.

During the intense heat of the months of July and August, we have observed but very few cases of cholcraic diarrhœa. The bowel complaints were of another sort. Bilious diarrhœa and dysentery were, and are, still common in children and persons of different ages. Few cases have been fatal in the hospitals.

Since the beginning of August, typhoid fever has been very prevalent. At the present moment our Hospitals are crowded with many dangerous cases of that disease, in which the most marked symptoms are—delirium, epistaxis,

rosy spots, dried tongue, etc. The beginning of these fevers is sometimes slow, sometimes sudden. Till now there is not a great mortality. In several cases of inflammatory type, the pulse, very active in the first days of the affection, suddenly abates, the heat of the skin is lessened at the same time, and a case which looked very intense, is, in the second week, at the end of its course.

Hooping-cough has been frequent in the spring and during all the summer. Variola, which for eighteen months caused a greater number of deaths than usual, has almost entirely disappeared. Scarlatina and measles have not been prevalent.

Such are the features of the medical constitution of the last months. Your papers publish in England for many years, and in Scotland for several months, a return of the deaths, births, and marriages, to which is always annexed a summary notice of the prevalent diseases. We have not such reports in France. The returns of deaths, births, and marriages, are printed and tabulated only once every five years. These official statistics give no indication about the different diseases which cause the deaths. Two or three towns only have published these data for some years. Strasburg and Algiers give a short account of the causes of deaths in their Medical Gazette. Paris has no such accounts. It is said that the Bureau has decided not to let the public know these statistics. I believe there is no such hindrance. The want of the necessary publication, to which I allude in this letter, has no other source than administrative practice, and perhaps a fear of expense in the creation of a new office.

I have heard that the Ophthalmological Congress which is about to meet at Brussels will be particularly interesting, by the accounts to be given about the contagious ophthalmy of armies. Russia, Prussia, Austria, will send to the meeting a deputation of military Surgeons conversant with that disease. The Minister of War in France has already appointed two persons of great distinction to the Congress, Drs. Lustreman and Laveran.

H^te^ Baron Larrey has been appointed Physician of the Emperor at the camp of Chalons. The honourable Surgeon will be at the same time Director of the sanitary service of the troops.

PROVINCIAL CORRESPONDENCE.

IRELAND.

Dublin, August 31, 1857.

So far the meeting of the British Association has proceeded most auspiciously. The assemblage on Wednesday evening to hear the President's opening address, which consisted chiefly in a very able review of some of the most important recent additions to science, was extremely numerous, filling to overflow the large room of the Rotunda. Dr. Daubeny, having paid a becoming tribute to the important labours of the Rev. Dr. Lloyd, and having alluded to the great success of the meeting formerly held in Dublin, under the auspices of his father, resigned the chair to him. On the termination of the President's discourse, the meeting was addressed by the Lord Lieutenant; Lord Wrottesley, P.R.S.; and Mr. John Phillips, F.R.S., Assistant General Secretary. From the statements of the last named gentleman, it appeared that the total number of persons assembled to hear the President's address at Cheltenham, which was a very good meeting of the Association, was 805, while the total number who had received tickets for the present meeting was 1573. The money received in the first opening meeting at Cheltenham amounted to £780; that taken upon the present occasion was £1584.

The more immediate business of the Association commenced on Thursday, at eleven o'clock, when seven sections met, and were most conveniently accommodated in the new museums and lecture-rooms of Trinity College. The sections and respective presidents are as follow:—A, Mathematical and Physical Science, Rev. T. Romney Robinson, F.R.S.; B, Chemical Science, Professor Apjohn, F.R.S.; C, Geology, The Lord Talbot de Malahide, President of the Geological Society of Dublin; D, Zoology and Botany, Professor W. H. Harvey, M.R.I.A.; E, Geography and Ethnology, Rev. James H. Todd, Pres. R.I.A.; F, Economic Science and Statistics, The Archbishop of Dublin; G, Mechanical Science, The Earl of Rosse, M.R.I.A. It was subsequently found necessary to create a subsection, D, for Physiological Science, under the presidency of Professor Harrison, M.R.I.A. The Vice-Presidents of this, which may be considered the Medical section, are Sir Henry Marsh, Bart.; Professor Hugh Carlisle, of Belfast; Professor F. C. Faye, Christiania; Dr. Jacob; and Professor Laycock, Edinburgh.

In the section for Zoology and Botany, Professor George Wilson, on Thursday, read a paper "On the employment of the living Electric Fishes as Medical Shock Machines." He stated that in prosecuting researches into the early history of the electric machine he did not at first contemplate going further back than the seventeenth century, or commencing with any earlier instrument than Otto Guericke's Sulphur Globe of 1670. His attention, however, had been incidentally directed to the employment of the living torpedo as a remedial agent by the ancient Greek and Roman physicians; and he now felt satisfied that a living fish was alike the earliest and the most familiar electric instrument employed by mankind. In proof of the antiquity of the practice he adduced the testimony of Galen, Dioscorides, Scribonius, and Asclepiades, whose works proved that the shock of the torpedo had been used as a remedy in paralytic and neuralgic affections before the Christian era. A still higher antiquity had been conjecturally claimed for the electric silurus or malapterurus of the Nile, on the supposition that its Arabic name Raad signifies thunder-fish, and implied a very ancient recognition of the identity in nature of the shock-giving power and the lightning-force; but the best Arabic scholars have pointed out that the words for thunder (raad) and for the electric fish (ra'a'd) are different, and that the latter signifies the "causer of trembling," or "convulser," so that there are no grounds for imputing to the ancient Egyptians, or even to the Arabs, the identification of silurus-power with the electric force. In proof of the generality of the practice of the zoo-electric machine at the present day the writer referred to the remedial application of the torpedo by the Abyssinians, to that of the gymnotus by the South American Indians, and to that of the recently-discovered electric fish (Malapterurus Beninensis) by the dwellers on the old Calabar River, which flows into the Bight of Benin. The native Calabar women were in the habit of keeping one or more of the fishes in a basin of water and bathing their children in it daily, with a view to strengthen them by the shocks which they receive. These shocks are certainly powerful, for living specimens of the Calabar fish are at present in Edinburgh, and a single one gives a shock to the hand reaching to the elbow, or even to the shoulder. The usages referred to appear to have prevailed among the nations following them from time immemorial; so that they furnish proof of the antiquity as well as of the generality of the practice under notice. The writer concluded by directing the attention of naturalists to the probability of additional kinds of electric fish being discovered, and to the importance of ascertaining what the views of the natives familiar with them are in reference to the source of their power, and to their therapeutic employment.

On the same day, Professor Aug. Voelcker, of the Royal Agricultural College, Cirencester, read an interesting paper, in the Chemical section, on the proportion of organic phosphorus in legumin. Dr. Voelcker had on a former occasion shown that a considerable quantity of phosphorus occurs in organic combination in casein, in which substance, as well as in legumin, this element appears to have been altogether overlooked. The author found that legumin, like casein, and all the other nitrogenised proximate principles of plants, contains phosphorus, not only in the form of phosphates of lime and magnesia, which are not easily separated from legumin, but also in a state of intimate organic combination. Thus, in legumin from green peas, prepared at different times, the following were found to be the proportions of phosphorus in 100 parts:—In legumin dried at 120° C. (248° F.), 1·383; in legumin from white beans, 1·78; in legumin from field-beans, 1·10; in legumin from dried split peas, 1·52. The importance of these observations will be at once apparent, when we recollect how extensively phosphorus enters into the constitution of the animal organism, and the results of Professor Voelcker's investigations will go far in explaining the well-known fact, that phosphorus is largely introduced, through the first nourishment provided by nature, into the osseous system of the young.

Professor T. Andrews read an interesting communication on

ozone, with some observations on the occurrence of that body in the atmosphere. In the commencement of the communication the author gave a full account of the action of heat upon ozone, which he showed was a characteristic test of this body; and, taken along with its other properties, particularly its odours, its bleaching action, and its power of oxidising dry mercury, rendered it one of the most easily recognised substances in chemistry. His experiments appeared to prove that the identity of ozone prepared from different sources may be fully established, as, for example, from the action of the electric spark, electrolysis; and the slow combustion of phosphorus in air or diluted oxygen. Dr. Andrews adverted briefly to a series of experiments he had recently made in conjunction with Professor Tait, on the change of volume which occurs when ozone is converted into ordinary oxygen by the action of heat, and from which it has been ascertained that the density of ozone is four times that of oxygen. This observation is one of the most important contributions to the recent history of the subject; it is in perfect accordance with what has been observed in the case of other bodies, whose allotropic modifications all differ somewhat in density. In the second part of the communication the author gave a general account of the conditions under which ozone exists in the atmosphere. From these observations, Dr. Andrews is not inclined to agree with those who connect epidemic disease with ozone. He suggested to those engaged in meteorological investigations that it would be very desirable to make observations upon atmospheric ozone at different heights.

Sub-section D, for Physiological Science, met for the first time on Saturday, in the Law School, Trinity College. The President, Professor Harrison, on taking the chair, made some observations on the formation of this section. He reminded his hearers that, on the occasion of the first Dublin meeting of the Association, in 1835, a Physiological or Medical section had been formed, and worked with great success, and that many most important contributions to science had emanated from the labours of investigators in that section. Since 1835, however, as the meetings of the Association occasionally took place in provincial towns throughout the empire, where no physiological school existed, it had been deemed unadvisable that a physiological section should be permanently maintained. Nor, indeed, owing to the frequent absence of a special physiological section, had it been originally intended to include a distinct physiological section in the arrangements for the present meeting. It had been found, however, that so many distinguished scientific men had assembled in this city, representing not only England, Scotland, and Ireland, but several of the continental countries and America, that it was determined, even at the present late hour, to organise a subsection, in which the labours of these gentlemen could be made available to science.

Professor Laycock, in the absence, from illness, of the distinguished author, read a paper by Professor Alison of Edinburgh, on the *à priori* principles of Biology. On account of the infirm state of health of the writer, Professor Laycock was unable to do more than communicate an outline of Professor Alison's views, which were explained by Dr. Gairdner as being chiefly directed to oppose the modern tendency of Medical investigators to degrade their science into a subordinate department of chemistry on the one hand, or of mechanical science on the other, omitting all considerations of that higher, though less intelligible, class of phenomena which are known as vital.

Dr. Haughton read a paper on the Oriental Bath. Several speakers urged the necessity of encouraging and facilitating the use of bathing as a means of health and cleanliness.

Dr. W. T. Gairdner read a valuable paper "On the Mortality of certain Diseases." The object of this paper was to show the prevalence of certain causes of death among the population of a great city, as shown by the analysis of somewhat less than 300 cases of death in the population of Edinburgh. The author commented on the most frequent causes of mortality, and showed the sources of fallacy attaching to the returns of causes of death hitherto made. He made a suggestion with regard to the observation of causes of death in Hospitals, but said that the registration of deaths on the large scale is a work of such difficulty and labour, that any interference with the present system was not within the scope of the paper.

A special extraordinary meeting of the subsection has been summoned for ten o'clock on Tuesday morning, to hear an important communication from Professor F. C. Faye, of Christiania, on the mode of action of some species of Animal Virus.

DUBLIN, September 2, 1857.

I mentioned in my last that a special meeting of Subsection D had been summoned, to receive an important communication from Dr. F. C. Faye, of Christiania. At the time appointed Professor Faye addressed the section. He alluded to those diseases in the human subject which run a defined course, and render the system often healthier than before, and *immune* for the future from the effects of the same infection; to the diseases described in modern times as zymotic, of which the worst is variola; to the introduction of inoculation with the latter, and the continuance of the practice until the period of the great discovery of the immortal Jenner. The speaker adverted to the nature of vaccine, and showed that it differed from variola in this, that the latter is taken in two ways, by inoculation and through the respiratory organs, while we never heard of vaccine being epidemic. He showed that vaccine is a true blood disease, inasmuch as, when once introduced by the lancet, we cannot —if we try to do so—destroy it locally. Some are refractory to its influence, but many are capable of resisting any epidemic; still, by repeating or prolonging contact and absorption, we may produce the disease; by this means we compensate for want of intensity in the virus. Professor Faye was, after a series of experiments, satisfied that all doubt was removed as to the immunity produced by successful vaccination from its ferment, at least for a long time. It is evident that scarlatina, morbid vaccine, and variola, are not local diseases. Do we know any chronic zymotic disease? We never heard of such until the introduction of syphilization. Professor Faye paid a tribute to Professor Boeck of Christiania, and Sr. Sperino, of Turin, for their zeal and energy in investigating this subject. He described the mode in which the inoculations are performed, always taking the matter from the last sore until it will act no more. But the virus varies in strength in different countries; thus, when matter from Stockholm will cease to take, London matter will produce fresh sores. During syphilization, it must be allowed, good diet is given, and the patient will usually be in better health at the end than at the commencement of the process. A great distinction must be made between persons who have taken mercury and those who have not; the former are much more liable to relapses than the other. Ricord holds that secondary syphilis cannot be propagated by contact, because superficial inoculation does not succeed. General experience contradicts this. We know that syphilis can be propagated by prolonged contact, as between a nurse and child, even where no primary sore exists. Professor Faye believes in an immunity of the skin, such as is produced by the repeated use of blisters and issues, where no constitutional immunity exists. Syphilis is a local disease in the first instance, and may be destroyed within the first four or five days. In Norway general specific treatment is now never used until constitutional symptoms come on. Syphilis never wears itself out in the same frame: it may do so in the following generations, but not in the same individual; a germ will remain even under apparent cure, which may break out again after many years, or in the child. How, then, does syphilization act? Professor Faye believes that it acts by producing extensive depurative suppuration, assisted by good diet.

So far for syphilisation as a curative means. As to the question of immunity, Professor Faye has seen patients supposed to be immune, in whom the virus, however, took when introduced more deeply, or by prolonged contact. By crossing, too, from one individual to another, the virus will be increased in intensity. Something similar in the natural way will be found illustrated by Dr. Porter, in his very able paper in the *Dublin Quarterly Journal*. In like manner, though vaccine will not be increased by alternation between man and the cow, it will by crossing between human individuals of different families; and Professor Faye is of opinion that the vaccine virus, so far from wearing out, does, by being in this manner elaborated in different constitutions, rather improve. From a man in Christiania, who had an indurated chancre on the penis, sixty different inoculations were performed without success on eight different individuals, though from this chancre the man had in the natural mode infected other persons. This matter, by crossing from one individual to another,

became intense enough to produce the disease. By prolonged inoculation, too, a very dilute syphilitic matter can be taken. Some syphilologists have stated their belief that there are different kinds of syphilitic matter; in this opinion Professor Faye does not concur. Some have introduced secondary matter into healthy organisms; this is, of course, immoral, but science has gained by it; subjects so treated have gone through all phases of the disease. Perfect and absolute immunity, according to Professor Faye, does not exist. What, then, is syphilization? It is a curative chancre inoculation.

The question is often put, Can you propagate syphilis by vaccination? Dr. Simon, in his able paper addressed to the General Board of Health, has alluded to this inquiry. This investigation is attended with great difficulty, for a child may have syphilis from its parent, and vaccination may excite it. Mix up syphilitic primary matter and vaccine, and vaccinate with it, you have only syphilis; the syphilitic poison appears to destroy the vaccine. Thus syphilis was supposed to be a protection against cancer. Professor Boeck tried it in a case of cancer of the tongue, and the patient was cured. Here, then, may have been a depurative suppuration, and probably the cancer was not a very bad one. Now if you mix up weak syphilitic virus with vaccine, the latter will not be destroyed; hence secondary syphilitic matter may be introduced with vaccine. Professor Faye therefore concludes that syphilis may be introduced with vaccine.

The delivery of Professor Faye's address created great interest among the members of the Profession present, and, with the discussion on it, occupied some hours.

The following Committee was appointed to consider the subject of uniformity of micrometic measurement, and the adoption of a new standard, on the basis of some assumed definite micrometic integer, being a decimal part of unity, as recommended by Professor Lyons, C.U.I., in his paper on this subject:—Professor H. Carlisle, Dr. Redfern, Joseph Leslie. Esq., Dr. R. M'Donnell, Dr. Gairdner, Dr. Lyons; and it was resolved that the co-operation of the members of Section A. be requested.

GENERAL CORRESPONDENCE.

TRACHEOTOMY IN CROUP.

[To the Editor of the Medical Times and Gazette.]

Sir,—I beg to inclose the notes of a very interesting case admitted into St. George's Hospital, in which tracheotomy was performed, and the recovery of the patient established.

Frederick S., aged 6 years, was admitted on July 26 last, at 9½ p.m., with croup, which attacked him six days before, and although it appears he was actively treated, the disease was not arrested, but dyspnœa increased, and when admitted, the difficulty of breathing was so great as to endanger life by suffocation; the lips were livid, and the pulse quick, weak and flattering.

Under these circumstances Mr. Tatum performed the operation of tracheotomy. The upper part of the trachea being exposed several of its rings were divided, when on proceeding to enlarge the opening to admit the tube, a vein was wounded which bled very freely, and a considerable quantity of blood was drawn into the trachea at each inspiration; the breathing became more and more laborious and then ceased, complete asphyxia being produced. In the meantime the tube was rapidly introduced, which prevented the entrance of more blood and also gave exit to a considerable quantity which had been drawn in. Artificial respiration by repeatedly compressing the chest with the hands was now resorted to, and in a few minutes the pulse became perceptible, consciousness returned, and with it natural breathing, which was, however, too feeble to maintain life; for on the least interruption to the regular pressure of the chest, the breathing languished, and symptoms of apnœa returned. It was not until two hours had elapsed that the artificial respiration could be dispensed with, and during this time a teaspoonful of wine and water was frequently administered, and portions of false membrane with a good deal of muco-purulent matter were coughed up through the tube, which was kept clear by the frequent introduction of a feather.

Some saline medicine and ipecacuanha wine every six hours, with a grain of calomel night and morning, were then ordered.

The little patient now breathed freely through the tube, which was removed next day to clear out more effectually the hardened mucus adhering to its sides; but towards the evening of the 28th great dyspnœa again supervened, with a whistling sound during each inspiration; the tube was taken out, and with a small pair of curved forceps passed some distance down the trachea, a hardened piece of false membrane and mucus, an inch long and thicker than the tracheotomy tube, was removed. From this time he went on favourably, and on the 29th he began to breathe through the mouth and nostrils; respiration was, however, still mainly carried on through the tube, which required frequent cleansing from the great amount of inspissated mucus coughed up; and on the 31st it was entirely dispensed with. His diet, which consisted since his admission of strong beef-tea, wine, and milk, was now changed to meat, the calomel and saline omitted, and some oxymel of squills prescribed instead. He has since had no bad symptom; the wound healed kindly, and he left the Hospital quite well on the 19th inst.

I am, &c.

John H. Hooper, House-Surgeon.

St. George's Hospital, August 25, 1857.

VENTILATION OF SHIPS.

[To the Editor of the Medical Times and Gazette.]

Sir,—In my communication of the 21st instant, on the ventilation of ships, I quoted a description of Dr. Van Hecke's apparatus, from Annales d'Hygiène Publique for January last, wherein it is stated that it has a superior and an inferior ventilotor. I have since learnt (from a private source) that there is but one ventilator, but still of double power, fitted up on board the Adour.

This single ventilator is made to pump down as well as draw up air, according to the manner it is set going, like the Archimedian screw of a steamer,—motion in one way making the ship go forwards, and in the opposite impelling her backwards. Indeed, these flexible palettes are but imitations of the fans of the Archimedian screw, inclined at from 50 to 60 degrees. This inclination is not constant, but varies with the rapidity of rotary movement.

The funnel leading from the centre of the deck down to the hold is made of metal as far as the floor of the main deck, and its continuation to the lower deck and hold is made in canvas.

It should be stated that the French cubic metre (and not 181 cubic metres) is about 39 English inches square.

I am, &c. Frederic Roberts,

Dunkirk, 1st September, 1857.. Staff-Surgeon.

ADMINISTRATION OF CHLOROFORM.

[To the Editor of the Medical Times and Gazette.]

Sir,—In the very bold and unqualified manner in which Dr. Aveling mentions the administration of chloroform, it is evident he sees no lion in the way; yet I confess I do see one, whose form and ferocity I have specified, and feel much inclined to apprehend. If he mean by "any Surgeon with a moderately good head upon his shoulders," a man of experience in the particular matter under consideration, I understand the equivocal designation, though that would not meet my view of what is required in any such case; neither do I accede to his opinion that the three operations could be performed with "perfect safety" under the use of chloroform, as that is merely assuming a point at present unsettled. Further, when he says, if chloroform were seldom given, many lives would be consequently lost, his sequences run further than mine, as I have always been accustomed to regard chloroform as acting the part of an anæsthetic, diminishing or suspending the sensibility *pro tem.*, and not as saving life. Twenty years ago, or more, I opened the bladder in a case of perilous retention, and also amputated the entire breast in two instances (which proceeding I have been assured by an eminent Surgeon is the most painful of all operations), and yet found each do perfectly well without the use of chloroform, which was then unemployed or unknown; and I think I might challenge any gentleman to prove that the statistics of Surgery show a darker or more fatal shade without than with chloroform.

I am, &c.

Sept. 1, 1857. Thomas Aspray, L.A.C.E.

ARREST OF DEVELOPMENT IN UTERO.

[To the Editor of the Medical Times and Gazette.]

Sir,—The particulars of the following case may not be uninteresting to some of your readers, though it does not furnish any evidence corroborative of the theory held by some, that arrest of development in utero is generally caused by some mental impression or fright occurring to the mother, as in the present instance nothing of the sort can be traced.

Mrs. —— sent for me during the night of August 15. I found labour-pains had commenced a few hours previously, and all was going on in a satisfactory manner, the pelvis being very capacious. A fine male child was born in less than an hour after I reached the house. The child was nearly strangled, by the funis being twisted very tightly round the neck; and I was afraid to make much traction on the cord so as to release the child, owing to the patient telling me that in her last confinement she had had an alarming flooding. All went off very satisfactorily as regarded the mother; but the unfortunate deformity of the fœtus attracted my immediate notice. The right hand was deficient of the index and middle fingers, the thumb and other two fingers being quite perfect; the left hand was deficient of the middle finger and of the two terminal phalanges of the index finger, whilst the first phalange of the index finger was bound down to the thumb by a strong "webbing" of cuticle, and there was a very awkward action of the little finger. The metacarpus and carpus of both hands were perfect. The left foot had the great and little toes only, and the right foot had the next toe to the little toe in addition, the metatarsal bones being absent wherever the toe was wanting, which gave the feet a most curious appearance. In fact, all four extremities reminded me more of parrot's feet than anything else. Development appears to be perfect in every other respect, and the child is thriving famously.

Can any one satisfactorily account for these freaks of nature? Only a short time back I attended a woman whose husband has a stiff knee-joint, and the child's knee was stiff, and bent exactly in the same position as its father's! In addition, this child had both feet and hands clenched and immoveable. There was an extensive spina bifida, and a large quantity of fluid within the cranium. It lived four days. The woman has since had a well-formed child, and I only notice the case on account of the peculiarity of the knee-joint. Had a mental impression on the part of the mother anything to do with that? I leave this point for others to decide.

I am, &c. Robert Oke Clark.

Farnham, August, 1857.

OBITUARY.

SAMUEL METCALFE.

The North American *Medical and Chirurgical Review* for May, 1857, contains the account of the last days and death of a remarkable but little recognised man in the world of medicine—Dr. Samuel Metcalfe. The name will be well nigh forgotten in the London sphere, except by one or two who knew the man as a friend, and loved him as a devotee to science. Yet, fifteen years ago this said man was busied writing the last lines of a great work, which to his hoping mind was to carry scientific men away in a whirlwind, was to revolutionize thought, was to effect reforms in more things than physic, was to uplift the veil of ignorance, behind which simple facts stand as unmeaning mysteries, and was to afford a key to the phenomena of life.

There was something savouring of romance in the aspirations of this Medical philosopher; there was more of the practical romance in the mode by which he carried out his purposes. Early in life his mind caught fire on the subject of Caloric, and for many years he worked away in Missisippi at his favourite theme, succeeding at the same time in his duties as a practitioner. Next he was elected Professor of Chemistry in the University of Transylvania. But here, as his argument grew more powerful, he felt the basis of his research limited; he could not breathe in the confined book air; he must go to London, or his mission would fail.

He reached London in 1836, and commenced his work. His means were limited, and his health feeble, yet he struggled on in a labour that was immense. As the time fled the resources fled also, and the man came down to positive penury. A friend whom we know, and who knew Metcalfe, was accustomed to call on him, and was allowed the entrée into his one miserable room. The room was empty of all that might be thought necessaries, but the man, caring nothing for externals, worked away. At last the bodily bankruptcy proclaimed itself, since even a philosopher cannot work without brains, and brains cannot work without fuel; and the poor author was so far beaten by poverty, that but the fact that Dr. Willis of Dover-street, now of Barnes, himself then none of the richest, came to the aid of his neighbour, and divided with him his own lot, we might now have been writing even a more painful history.

Meantime, in the midst of this distress (thanks to the liberality of Mr. Pickering the publisher), the great work appeared, in two volumes. It came forth to fall still-born from the press. The *Medical Gazette* of that day spoke of it in a full strain of praise, and other reviewers thought it remarkable, while all acknowledged that it was learned to a fault. The commendation was in whisper, and the book was a failure. After seeing his hopes lost, Metcalfe, assisted we believe by the Literary Fund, retraced his steps to America in 1845. His English friends thought him lost or long dead, but it seems that absorbed in his favourite pursuit, he studied on at a second edition of his work until the 17th of July, 1856, when he died completely exhausted, his labour still unfinished on his hands.

In all literary and scientific undertakings the success of the work depends not so much on the worth of the work, as on its accordance with the temper of the time. Metcalfe's book failed because it was out of the general harmony. Hippocrates, Harvey, Newton, would have equally failed on similar grounds at that time. The book itself was a grand scientific poem chanted in prose. It developed a unit in creation, and made out of this unit a prime mover and agency for all natural phenomena. The conception was magnificent, and there were sentences of deep thought in these volumes, which will some day be considered as well nigh prophetic. The science of the time in which the work appeared, on the other hand, was entirely opposed to thoughts, and was bound down to the bare reception of details. The details might be true or false, no matter, it was in character with the time to have them; details were in demand in the science market, and Metcalfe, who was a bad speculator and an honest trader, lost his honours because he could not barter according to the popular will.

Metcalfe failed personally also in his relations with the world. He was not what is vulgarly called "thin skinned," but he was unusually sensitive in argument. He would yield a triumph to a mere blatant, rather than come into collision or actual fight. Hence men of meaner cast outstripped him in the race. The history of his career is at once as instructive as it is painful. We have said that at the time of his death the second edition of his great work was not yet complete; but we hope that what he had already done will not be buried with the man. When this iron scientific age, unrelieved, dark and barren, has passed away, Metcalfe's book will perchance stand out as one of the few volumes of the present day in which genius is enshrined.

MEDICAL NEWS.

Apothecaries' Hall.—Names of gentlemen who passed their examination in the Science and Practice of Medicine, and received Certificates to Practise, on Thursday, August 27, 1857:—

Hughes, Roger, Bala, North Wales.
Pughe, Hugh Richard, Bala, North Wales.
Wright, Frederick Thomas, Orsett, Essex

Prosecution of an Illegal Practitioner.—A person styling himself Dr. Bullar, Surgeon and Accoucheur, and residing at Niton, Isle of Wight, was summoned before the County Court, held at Newport on the 28th ult., for £20, being the penalty sought against him by the Apothecaries' Company of London for illegal practice. Before the cause was tried, however, the *soi-disant* Doctor consented that judgment should be signed against him, thus subjecting himself to the payment of £20 penalty, and £10 costs. We are informed that this person possesses no legal qualification whatever.

LIVERPOOL ROYAL INFIRMARY SCHOOL OF MEDICINE.—Annual distribution of Prizes, 1857. Surgery—Medal: Mr. J. J. Flinn. Certificate: Mr. H. G. Rawdon. Practice of Medicine—Medal: Mr. F. P. Weaver. Certificate: Mr. C. F. Oldham. Senior Anatomy—Medal: Mr. J. Robinson. Junior Anatomy—Medal: Mr. A. B. George. Certificate: Mr. G. C. Walker; Mr. A. Warburton. Chemistry—Medal: Mr. George. Midwifery—Medal: Mr. F. P. Weaver. Certificate: Mr. D. Mackinlay. Materia Medica—1st prize, books: Mr. G. C. Walker; Mr. A. Warburton—equal. Practical Chemistry—1st prize, book: Mr. W. Miller. Certificate: Mr. J. Finegan. Ophthalmic Surgery—1st prize, book: Mr. H. T. King; Mr. W. Miller—equal. Botany—1st prize, book: Mr. King.

VITAL STATISTICS OF LONDON.

Week ending Saturday, August 29, 1857.

BIRTHS.

Births of Boys, 857; Girls, 799; Total, 1656.
Average of 10 corresponding weeks, 1847-56, 1469.8.

DEATHS.

	Males.	Females.	Total.
Deaths during the week	564	613	1177
Average of the ten years 1847-56	..	..	...
Average corrected to increased population	...	..	1480
Corrected average for corresponding week in ten years 1847-56	677·3	667·6	1344·9
Deaths of people above 90	1	5	6
Deaths in 13 General Hospitals	44	21	65

METEOROLOGY.

From Observations at the Greenwich Observatory.

Mean height of barometer	29·943 in.
Mean temperature	66·9
Highest point of thermometer	85·9
Lowest point of thermometer	48·8
Mean dew-point temperature	58·3
General direction of wind	Calm.
Whole amount of rain in the week	0·00
Amount of horizontal movement of air in the week ...	265 miles

DEATHS REGISTERED DURING THE WEEK.

Causes of Death.	In the Week ending Saturday, Aug. 29, 1857. Deaths of Persons. AT ALL AGES.	Under 20 Years of Age.	At 20 and under 40 Years of Age.	At 40 and under 60 Years of Age.	At 60 and under 80 Years of Age.	At 80 Years of Age and Upwards.	Averages of Temperature and Deaths in 10 Weeks.
Mean Temperature	Mean temp. 66·9						60·7
ALL CAUSES	1177	642	152	176	160	47	1344·9
SPECIFIED CAUSES	1174	640	152	175	160	47	1339·0
DISEASES:—							
1. Zymotic Class	406	312	26	21	40	7	646·9
2. Dropsy, Cancer, and others of uncertain seat	40	3	5	22	9	1	46·6
3. Tubercular Class	206	96	57	42	10	1	174·8
4. Of Brain, Nerves, etc. ..	106	37	12	24	27	6	109·2
5. Of Heart, etc.	28	4	5	12	5	2	31·7
6. Of Respiratory Organs ..	88	44	12	13	15	4	84·3
7. Of Digestive Organs ..	80	35	8	18	18	1	63·9
8. Of Kidneys, etc.	12	..	4	6	2	..	11·1
9. Of Uterus; viz. — Puerperal Disease, etc. ..	12	2	5	5	..	..	9·5
10. Of Joints, Bones; viz.— Rheumatism, etc. ..	8	3	1	3	1	..	6·4
11. Of Skin, etc.	3	..	1	1	1	..	1·8
12. Malformations	2	2	..	..	..	..	3·1
13. Debility from Premature Birth, etc.	34	34	..	..	..	..	30·6
14. Atrophy	45	38	1	..	6	..	40·9
15. Age	42	..	..	..	20	22	39·2
16. Sudden	6	5	1	..	..	..	5·9
17. Violence, Privation, etc...	56	25	14	8	6	3	33·1
CAUSES NOT SPECIFIED.. ..	3	2	..	1	..	..	5·9

DEATHS IN SUB-DISTRICTS FROM EPIDEMICS.

	Population. 1851.	Measles.	Scarlatina	Hooping-Cough.	Diarrhœa.	Cholera.	Typhus.
West	376,427	3	7	6	30	2	6
North....	490,396	5	4	8	38	2	16
Central ..	393,256	4	8	7	24	2	7
East	485,522	6	3	9	51	4	23
South	616,635	1	6	6	55	5	14
Total..	2,362,236	19	28	36	198	15	66

TO CORRESPONDENTS.

DISEASES IN CHINA.

TO THE EDITOR OF THE MEDICAL TIMES AND GAZETTE.

SIR,—Will you be kind enough in your next number to tell me where I can find a good account of the diseases peculiar to and prevalent in China?

Dorchester. I am, &c. W. G. B.

[Perhaps some of our readers may be able to answer this question.—ED. M. T. and G.]

Philo-Chemicus.—Prussian blue is a compound of iron and cyanogen, in the proportion of 7 parts of the former to 9 of the latter.

A Layman.—The University of London is an Examining Body, and not a Medical School. The University College in Gower-street was called the University of London at its first foundation, and hence, perhaps, the mistake into which our correspondent has fallen.

Mr. John B. Brice.—One of the best microscopes may be had for £20; but one which will answer for all ordinary purposes may be procured for about seven guineas.

A Physiologist.—There can be no doubt that Dr. Marshall Hall's researches into certain functions of the nervous system were made in ignorance of the previous observations of Prochaska; but it is equally certain that the views of Prochaska, although they excited very little notice, and were probably not much valued by their author himself, were essentially identical with the conclusions deduced from the more extended experiments and investigations of the English physiologist. The remarkable coincidence existing between the views of Prochaska and those of Dr. Marshall Hall was discovered accidentally by a gentleman who happened to be reading a volume of the former author.

An Irish Subscriber.—1. We have not heard of the probability of any such increase. 2. We believe that there are several vacancies. 3. Apply to Dr. Andrew Smith, the Director of the Army Medical Department, Whitehall-yard.

R.S.T.—We have not received any information on the subject alluded to by our Correspondent; and if any should reach us, we shall bear in mind the purport of his letter.

Dr. W. B. will perceive that his wishes have been complied with.

COMMUNICATIONS have been received from—
Dr. ALDIS; Mr. WILLIAM G. BACOT; Mr. PRIDEAUX; Mr. J. G. ANDERSON; THE GENERAL BOARD OF HEALTH; Mr. THOS. WINDSOR; Mr. G. W. HASTINGS; Mr. F. JONES; Mr. G. B. MASFEN; Mr. WORDSWORTH; Mr. J. J. PORTER; Mr. FREDERIC ROBERTS; PHILO-CHEMICUS; AN IRISH SUBSCRIBER; Mr. JOHN B. BRICE; A PHYSIOLOGIST; A LAYMAN; R.S.T.; Dr. W.B.; ERINENSIS; A LONDON PROFESSOR.

APPOINTMENTS FOR THE WEEK.

5. *Saturday (this day).*

Operations at St. Bartholomew's, 1½ p.m.; St. Thomas's, 1 p.m. King's, 2 p.m.; Charing Cross, 1 p.m.

7. *Monday.*

Operations at the Royal Free Hospital, 1 p.m.; Metropolitan Free Hospital, 2 p.m.; Orthopædic Hospital, 3 p.m.

8. *Tuesday.*

Operations at Guy's, 1 p.m.; Westminster, 2 p.m.

9. *Wednesday.*

Operations at University College Hospital, 2 p.m.; St. Mary's, 1 p.m. Orthopædic Hospital, 3 p.m.

10. *Thursday.*

Operations at St. George's, 1 p.m.; Middlesex, 12½ p.m.; Central London Ophthalmic, 1 p.m.; Loudon, 1½ p.m.

11. *Friday.*

Operations at the Moorfields Ophthalmic, 10 a.m.; Westminster Ophthalmic, 1½ p.m.

EXPECTED OPERATIONS.

KING'S COLLEGE HOSPITAL.—Saturday (this day)—Mr. Henry Lee: Perineal Section, Fistula in Ano, and Radical Cure of Hydrocele.

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Or SACCHARATED CAPSULES, approved of by the French College of Physicians, successfully administered in the Paris and London Hospitals, and acknowledged by them to be the best remedy for the cure of certain diseases. (See the "Lancet" of 6th November, 1852; "Medical Times," 10th December, 1852; a copy of which will be forwarded on application.) Price, per 100, 4s. 6d.; 50, 2s. 9d.

To be had of the Inventor, GABRIEL JOZEAU, sole French Chemist, 49, Haymarket, London, whose name is printed on the Government stamp; and of all the principal Chemists of England.

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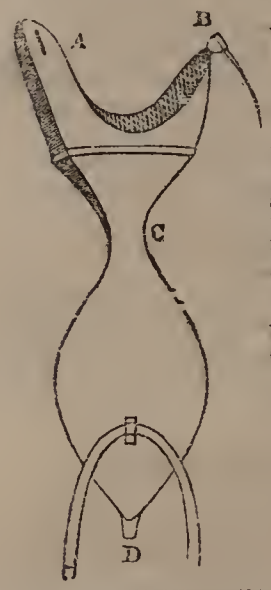

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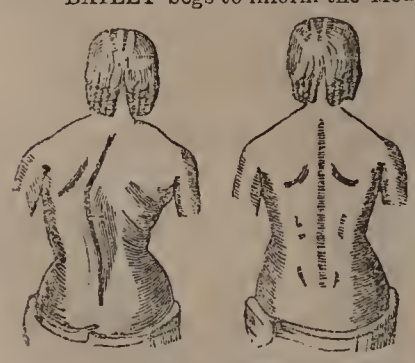

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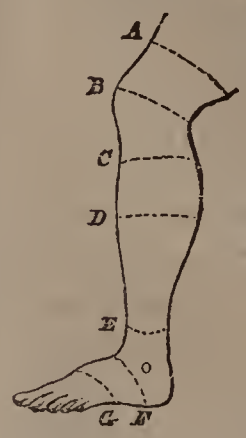

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By WILLIAM ADAMS, F.R.C.S.

Assistant-Surgeon to the Royal Orthopædic Hospital; Lecturer on Anatomy and Surgery at the Grosvenor-Place School; late Demonstrator of Morbid Anatomy, etc., at St. Thomas's Hospital, etc.

LECTURE XII.

NON-CONGENITAL TALIPES VARUS.

General Remarks — External characters — Diagnosis — Morbid Anatomy—Pathology—Prognosis—Treatment.

Talipes Varus is sometimes met with as a non-congenital deformity, generally resulting from infantile paralysis during teething, but sometimes produced by spasmodic and other affections. Although the cause upon which this deformity depends generally dates from infancy, yet, as the distortion of the foot is very slowly produced, in a manner I shall presently explain to you, we seldom see these cases in childhood, but generally in youth; and as the co-existing paralytic condition of the limb is frequently considered to be the more important affection, the Surgeon sometimes is not consulted till the adult period of life, when additional inconveniences have arisen, such as ulceration of the foot, to which these paralytic extremities are especially liable, or such an increase of distortion as to render walking very painful or altogether impracticable, even with such mechanical assistance as the boot-makers and instrument-makers are able to give.

External Characters.—The external characters of non-congenital varus resemble, or rather approach in resemblance to, those I have described as characteristic of the ordinary congenital form of varus, but they are never so distinctly marked, for two reasons—

1st. Not being congenital there is an absence of the characteristic deformity of the bones, more particularly of the astragalus, which I have described as existing even at birth in the congenital form.

2ndly. Being nearly always of paralytic origin, the foot is pushed or forced into its position by the superincumbent weight of the body in walking, rather than drawn into it by the active tonic contraction of the muscles, and its retention in this position is the result of a slow adaptation of the ligaments and muscles.

The foot, therefore, although it may assume the inverted position sufficiently for its classification with varus, as a variety, presents a generally rounded and smooth external surface, without any of the marked irregularities on the dorsal aspect, and without the longitudinal and transverse depressions on the plantar aspect described as characteristic of the congenital form in the adult; and with this absence of the external markings there is also an absence of the rigidity of the foot constantly present in the adult congenital cases.

Diagnosis from the Congenital Form of Varus.—The differences in the external characters between the congenital and non-congenital forms of varus above described are sufficiently marked to enable you to diagnose the cases at a glance in almost every instance. Some little difficulty may occasionally arise when the non-congenital cases are seen at an advanced period of life, in consequence of the increased rigidity and aggravation of the deformity acquired by age; but the paralytic and extremely wasted condition of the limb which usually co-exists with the above-mentioned external characters in the non-congenital form, also materially assists you in diagnosing these cases. It is important to be aware of these facts, because in the adult you cannot always obtain a reliable history to the congenital or non-congenital origin of the deformity; and although the treatment will be essentially similar, important differences will be found to exist with respect to the duration and the results of treatment in reference to the usefulness of the foot. The prognosis, therefore, will materially depend upon the congenital or non-congenital nature of the deformity.

I have previously mentioned to you that the adult case described and figured by Cruveilhier (a) as one of congenital varus, and in which he has described a state of very advanced fatty degeneration of the muscles—a condition which certainly does not generally exist, if indeed it ever occurs, in congenital varus even in advanced age—and also extreme atrophy of the nerves, with diminution in size of the tendons, blood-vessels, and other atrophic changes; was beyond all doubt a case of non-congenital varus, it might, perhaps, be more properly called equino-varus, of paralytic origin. All the morbid conditions described and represented precisely agree with the conditions I have found by dissection in cases of non-congenital varus, and with those described by other authorities in several carefully recorded cases; while they differ very widely from the conditions in adult congenital varus, so far as they have been ascertained by dissection, and, as regards the muscles, can be ascertained by their physiological condition. Cruveilhier had, no doubt, been told that this was a case of congenital varus, and then he described the appearances presented on dissection. My colleague, Mr. Brodhurst, has, however, tended to perpetuate this error by relying on Cruveilhier's account, and quoting it as the ordinary condition of the muscles, tendons, nerves, vessels, ligament, skin, etc. in congenital varus in the adult (b).

Morbid Anatomy.—In non-congenital varus of paralytic origin, its ordinary cause, the bones, ligaments, muscles, tendons, nerves, vessels, and skin undergo all the changes of defective growth, atrophy, and degeneration, so well described by Cruveilhier in the dissection above adverted to.

The deviations in the form of the bones, articular surfaces, and ligaments, in non-congenital varus, partake of the same general characters already described as existing in the congenital form; but are all much less in degree, obviously for the reason that the development of these structures has proceeded without interruption, not only up to the period of birth, at which time I have already explained to you that important deviations in form are found to exist in the congenital cases, but up to the period of the commencement of the deformity, which is generally produced by infantile paralysis during dentition, or some of the febrile disorders of early childhood. Speaking generally, the deviations in form in these structures may be said to approximate, in a greater or less degree, to those which I have already described as existing in the congenital cases; but they never exist to the same extent, or in the same definite form. The astragalus, for instance, never presents the peculiar malformation which it constantly exhibits in congenital varus; and the adapted shortening of the ligaments, and consequently the rigidity of the foot, is always very materially less. This at once explains why the deformity in adult cases of non-congenital varus can be removed in two or three months, while in congenital cases more than a year is frequently required to produce the same result.

The muscles differ essentially in their structural conditions in the congenital and non-congenital forms of varus. I have previously stated that in congenital varus the muscles are generally healthy at the period of birth; that if the deformity be allowed to continue, their growth is impeded in a proportionate degree; but that structural degeneration does not take place to any considerable extent, even when the deformity has remained unrelieved up to the adult period of life. The reverse, however, is the case in the ordinary form of non-congenital varus, the result of paralysis. Here fatty degeneration of the muscular tissue commences as an early change, and rapidly advances to an extreme degree. This degeneration will not take place in all the muscles to an equal extent, unless they are all equally paralysed, which I think is an exceptional condition. Generally the tibialis anticus, and sometimes the tibialis posticus, will be found to be in a comparatively healthy condition. In one case which I examined, in a man 37 years of age, the muscular tissue of the tibialis anticus was of a light red colour, and to the naked eye looked tolerably healthy, though, microscopically examined, its structure was seen to be somewhat degenerated; but every other muscle in the leg was in an extremely advanced stage of fatty degeneration, the fasciculi in many parts were filled with oil and granular fat, and vesicular fatty tissue also existed abundantly, taking the place of the muscular tissue by the process of "fatty substitution" described by Mr. Quekett.

(a) Anatomie Pathologique, tome i. livraison 2e, planche 3.
(b) Brodhurst on Club-foot, p. 38.

Although fatty degeneration of some or all of the muscles is undoubtedly the rule in non-congenital varus, I am not prepared to say that it invariably exists; because this deformity may be occasionally produced by spasmodic as well as paralysic affections, and therefore probably the muscular structures may sometimes be in a comparatively healthy condition, as I have found them in spasmodic equino-varus; but further observations are necessary on this point.

Tendons.—The tendons in adult cases of non-congenital varus of paralytic origin are always of much smaller size than natural. In Cruveilhier's case, the tendo-Achillis was less than half the size of that of the opposite leg. This is the result of imperfect growth, and also of atrophy, probably with some structural degeneration.

The deviations in situation and direction of the tendons in non-congenital varus, approximate to the deviations already described in the congenital form, but they never exist to the same extent, because the displacement and altered form of the bones, and also the adapted shortening of the ligaments are less considerable. The posterior tibial tendon, for instance, which is of the greatest surgical importance, occupies more nearly its natural position behind the malleolus; and as the navicular bone is less distinctly in contact with the inner malleolus, and is not very rigidly held in its partially displaced position, the posterior tibial tendon may frequently be divided below the malleolus (the anterior part of the foot being everted by an assistant) if such an operation, which has been recommended by Mr. Syme, be preferred by the surgeon. I recommend you, however, to divide this tendon about an inch above the inner malleolus. It is now quite certain that the posterior tibial tendon should not be divided immediately behind the malleolus, because such an operation endangers non-union of the tendon, in consequence of the separation of the divided extremities of the tendon within the dense sheath behind the malleolus. In the specimen which I have recently dissected from a man aged 37 years, and to which I have previously alluded, the posterior tibial tendon had been divided in the dense sheath behind the malleolus, and no union of the divided extremities of the tendon had taken place; the upper and the lower extremities had both become firmly adherent to the anterior wall of the sheath, and were immoveable. I am satisfied that in every instance the cellular sheath forms the greatest protection against non-union of the divided tendon, whilst it also plays an important part in the reparative process; and the fact I have just mentioned strengthens the practical rule we adopt at the Orthopædic Hospital, of never dividing tendons, whether in the foot or hand, in the dense portions of their sheaths.

Vessels and Nerves.—Diminution in size and atrophy of structure are the changes we should expect to find in these as well as in other tissues. In Cruveilhier's case the arteries and veins were less than half their normal size, and the nerves extremely small, and described as almost reduced to their neurilemma.

Pathology.—a. *Etiology and mode of production*—Non-congenital varus is generally the result of infantile paralysis, occurring during dentition or some of the febrile disorders of childhood. In some cases all the muscles below the knee are paralysed, and then the deformity takes place very slowly, from position and the influence of the superincumbent weight of the body in walking acting so as to twist the foot inwards. In other cases, only some of the muscles of the leg are paralysed, generally the peronei, extensor longus, and sometimes the extensor pollicis; the deformity then takes place much more rapidly, in consequence of the unbalanced action of the tibialis anticus and postieus muscles assisting in the inversion of the foot during progression. When the paralysis is limited to a few muscles, the real nature of the case may be overlooked by Surgeons not familiar with these affections, and serious errors of diagnosis and treatment may result.

I am at the present time attending, with my friend, Mr. Covey, of Wilton-street, a young gentleman, aged 5 years, in whom the peronei and extensor longus are the only muscles paralysed, and the foot was rapidly assuming the varus form. The lameness was supposed to be the result of hip-joint disease, for which he had been treated by *leeches*, *counter-irritation*, and a course of alterative treatment, under which the joint affection was supposed to have yielded. Not the slightest trace of hip-joint disease existed when this case came under our care, and we saw no reason to believe that any had ever existed. The first error of diagnosis in this case appears to have been made in consequence of a little peculiarity (though not one of very rare occurrence) in the mode of seizure. The boy suddenly fell while going up stairs, and as he afterwards limped, and it was said complained of a little pain in his thigh, injury to the hip-joint was at once assumed by the Surgeon in attendance, and a little later it was proposed to employ the actual cautery; but, as this met with some objection, two other Surgeons were called in consultation. Even now the error in diagnosis was not detected, but the cautery was rejected, and blisters recommended. I have no doubt whatever that this child fell in consequence of the sudden seizure of paralysis, and if all the muscles of the leg had suffered, the nature of the case would not have been overlooked. I have previously adverted to these sudden seizures of infantile paralysis, of which I have seen numerous examples. In another of such cases, also now under my care, a boy suddenly fell, and all the muscles of the left leg below the hip-joint were completely paralysed as to motion (I have previously mentioned that sensation is either very little or not at all impaired in these cases), and the mother supposed the leg to have been broken. She took the child to one of our Metropolitan Hospitals, where it was pronounced to be fractured, and set accordingly. She continued her attendance exactly a year, and then, believing that the fracture had never been properly set, because, she said, the leg appeared to be exactly the same as when she picked him up after the accident, she brought the child to the Orthopædic Hospital. The leg was found to be completely paralytic, very much wasted or withered, and contraction of the foot, and also at the hip-joint, had taken place—only to a slight extent at the hip—but there was not the slightest indication of any fracture having occurred. The case first mentioned will lead you to look for any tendency to inversion of the foot from partial paralysis, when a limping gait may at first induce you to suspect hip-joint disease.

Non-congenital varus is also said to arise from spasmodic affections, but I have never seen a well-marked case of permanent varus associated with a spasmodic condition of the muscles. I have sometimes seen a foot temporarily drawn into the position of varus in spasmodic affections; and one of the best marked examples was in a case of hysteria connected with derangement of uterine functions in a girl. It is also said to occur in the violent spasmodic condition resulting from strychnine, but generally in spasmodic affections, as in the rigor mortis the feet assume the form of equino-varus, and as a permanent condition or deformity this also is the variety which will be most frequently met with in spasmodic cases.

Inversion of the foot from traumatic lesions is seldom, if ever, severe enough to be classed with varus, and cases of this kind have already been mentioned in the class of equino-varus, to which they more properly belong.

b. *Numerical importance.*—In the statistical account of 1780 cases of deformities of the feet, congenital and non-congenital, which had been treated at the Orthopædic Hospital up to the year 1851, and to which I have previously alluded, 999 cases of non-congenital deformities are recorded, and of these only 60 were classified as non-congenital talipes varus; therefore you perceive that, relatively to the other non-congenital deformities, this is one of rare occurrence. Talipes equinus is by far the most frequent non-congenital deformity, constituting nearly one-half the cases. In the table above alluded to, the relative frequency of the non-congenital deformities is represented as follows:—

Talipes equinus	401
Talipes valgus	181
Talipes equino-varus	162
Talipes calcaneus and calcaneo-valgus	110
Talipes equino-valgus	80
Talipes varus	60
Talipes varus of one foot, and valgus of the other	5
	999

These 60 cases of non-congenital varus were thus distributed:—

Affecting the right foot only	25
Affecting the left foot only	20
Affecting both feet	15
Total	60

Thus you perceive how much more frequently one foot only is affected, and this corresponds with the results in the ther

paralytic deformities. I have previously stated that infantile paralysis, which generally lays the foundation of this, as well as most of the other non-congenital deformities of the foot, "most commonly affects some of the muscles of one leg."

c. *Co-existence with other deformities of the opposite foot.*—When one foot is affected with non-congenital varus, the opposite foot is generally free from deformity, for the reason above stated. Only five cases to the contrary are recorded in the statistical table above adverted to, and it is somewhat remarkable that in each instance the right foot was affected with varus, and the left with valgus. In my own experience cross cases of this kind have generally been examples of paralytic equino-varus and equino-valgus.

Prognosis.—From the pathological history of this deformity, which I have just given, and especially from the fact that it is generally the result of a paralytic affection, you will be prepared to hear that the prognosis, with respect to the power and general usefulness of the foot after removal of the deformity, must be as unfavourable in this non-congenital form of varus as it is favourable in the congenital form. The deformity itself can be very easily cured, and, doubtless, this is worth doing in most cases. So far, then, the prognosis must be favourable; but, as these cases are more frequently seen in adults, or in adolescence, than in childhood, and as there is generally persistent paralysis, of which there is no hope of cure, and often very little of improvement, they can only be undertaken with the view of improving the condition of the patient; and in some cases, the inconveniences to the patient, arising from the deformity, and from the paralytic condition of the limb, especially when ulceration of the foot has taken place, are so great that the ultimate advantages of curing the deformity by orthopædic treatment will have to be balanced against those of amputation and the substitution of an artificial leg. When the deformity arises from other causes, and is not associated with paralysis, the prognosis must depend upon the exact condition of the muscles, and also upon the condition of the articulations, and structures involved.

Treatment.—If, after considering all the circumstances of the case, it be determined to cure the deformity, as a means of improving the condition of the patient, these cases of non-congenital varus must be treated upon the same general principles, and by the same means as in congenital varus. The operative, mechanical, and physiological means previously recommended are all equally applicable to this variety. Sometimes fewer tendons may be required to be divided; the division of the posterior tibial tendon, for instance, may be unnecessary. With respect to the apparatus, I would recommend the use of the straight splint in the first stage, *i. e.* overcoming the inversion of the anterior part of the foot, and reducing the deformity to the condition of equinus; and the employment of the Scarpa's shoe in the second stage, *i. e.* the cure of the equinus. Pressure on the convexity of the foot during the process of everting the anterior portion, and consequently the danger of producing sloughs, may be completely avoided by the use of the straight splint. The Scarpa's shoe is frequently employed, but you will remember my objections to the use of this instrument in congenital varus, and I think they may be urged with more force in the non-congenital varus; not only is it most unscientific in its construction, as not being in accordance with the anatomical conditions of the foot, but the pressure necessarily made on the convexity of the foot, in producing eversion, is most objectionable in the paralytic condition of the limb.

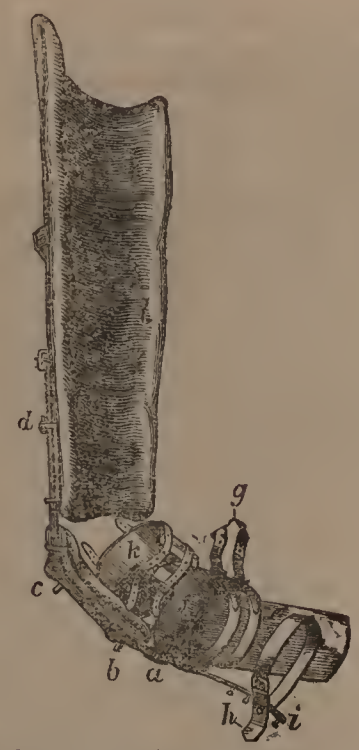
In some of the most severe and rigid adult cases, you might very safely, and with great advantage, use the instrument to which I have affixed my name, and which I introduced to your notice in my last lecture, and recommended for adult congenital varus. This instrument avoids all pressure on the convexity of the foot as completely as the straight splint, and the eversion, uplifting, and unfolding of the anterior portion of the foot may be conducted simultaneously, instead of being done separately, as is the practice at the present time at the Orthopædic Hospital, where either the straight splint or the Scarpa shoe is used.

All the objections which in the last lecture I urged against the Scarpa's shoe as an instrument for varus (*Medical Times and Gazette*, July 18) are equally applicable to the modification of this instrument employed by Mr. Tamplin in severe adult varus, and represented in fig. 57.

In this instrument the power of adaptation and the range of motion in the Scarpa's shoe part of the instrument are increased, but all the essential errors of the Scarpa's shoe, as an instrument for varus, are retained.

In the non-congenital cases of varus we are now considering, you will find the straight splint answer very well for the first stage, and the Scarpa's shoe for the second. One fact I would particularly impress upon you, viz. that the mechanical treatment must be conducted with extreme caution in order to avoid sloughs from pressure, which readily take place in these cases, in consequence of the paralytic condition of the

Fig. 57.



a. Flexion cog-wheel, corresponding to the ankle-joint. *b* and *c*. Cog-wheels to produce eversion of the foot, placed above that corresponding to the ankle-joint. *d*. Sliding-rack, by which this portion of the instrument may be elongated or shortened. *e* and *f*. Sole-plate and heel-piece, made as in the ordinary Scarpa's shoe. *g*. Instep-straps. *h* Toe-straps connected with the side spring *i*. *k*. Ankle-strap. All precisely the same as in the Scarpa's shoe. *l*. Leg and thigh-trough, without any hinge at the knee-joint. Motion at the knee-joint, I am told, was added to one of these instruments, but it did not exist in those most recently used at the Hospital.

limb; and the difficulty, or sometimes even the impossibility, of healing sloughs thus produced has unfortunately been too frequently illustrated. Relapse of the deformity soon takes place when the treatment is interrupted from this cause; and these, together with the other paralytic contractions, are among the most unsuccessful cases ever undertaken by Surgeons who have little experience in the treatment of deformities.

The time occupied in restoring the foot to its natural position is generally not more than three or four months, about one third of the time occupied in curing a congenital case of varus at the same age. This difference is sufficiently explained by the condition of the ligamentous and muscular tissues above described.

After Treatment.—In consequence of the paralytic condition of the limb generally existing in these cases, it will be necessary for the patient to wear some form of retentive apparatus, probably for the rest of life. The precise form of the mechanical support must depend very much upon the extent of the paralysis, and especially whether extension of the leg from the knee-joint has been lost by paralysis of the rectus muscle; if so, then a steel support must be carried from the foot up to the hip-joint, and connected with a steel belt round the pelvis, motion being allowed only at the hip-joint. The knee-joint must be kept stiff during the act of progression by a knee-cap connected with the leg-iron—the knee must be mechanically anchylosed, as it were—but, by what is called a gun-lock spring, or some of the other contrivances in common use, the patient may have the power of bending the knee whilst sitting. If the rectus muscle is not paralysed, the foot may be supported by an inside iron attached to the boot, with a stop-joint at the ankle, to be worn in the daytime, and a light and simplified form of Scarpa's shoe, without any cog-wheels, and having only a light steel leg-iron fixed at a right angle to the sole-plate, to be worn at night, to prevent recontraction of the ligaments and muscles, and consequent relapse of the deformity.

LECTURE

ON THE

NERVOUS STRUCTURES AND THE ACTION OF THE HEART.

BEING ONE OF THE LUMLEIAN LECTURES READ BEFORE THE

Royal College of Physicians, March, 1857.

By ROBERT LEE, M.D. F.R.S.

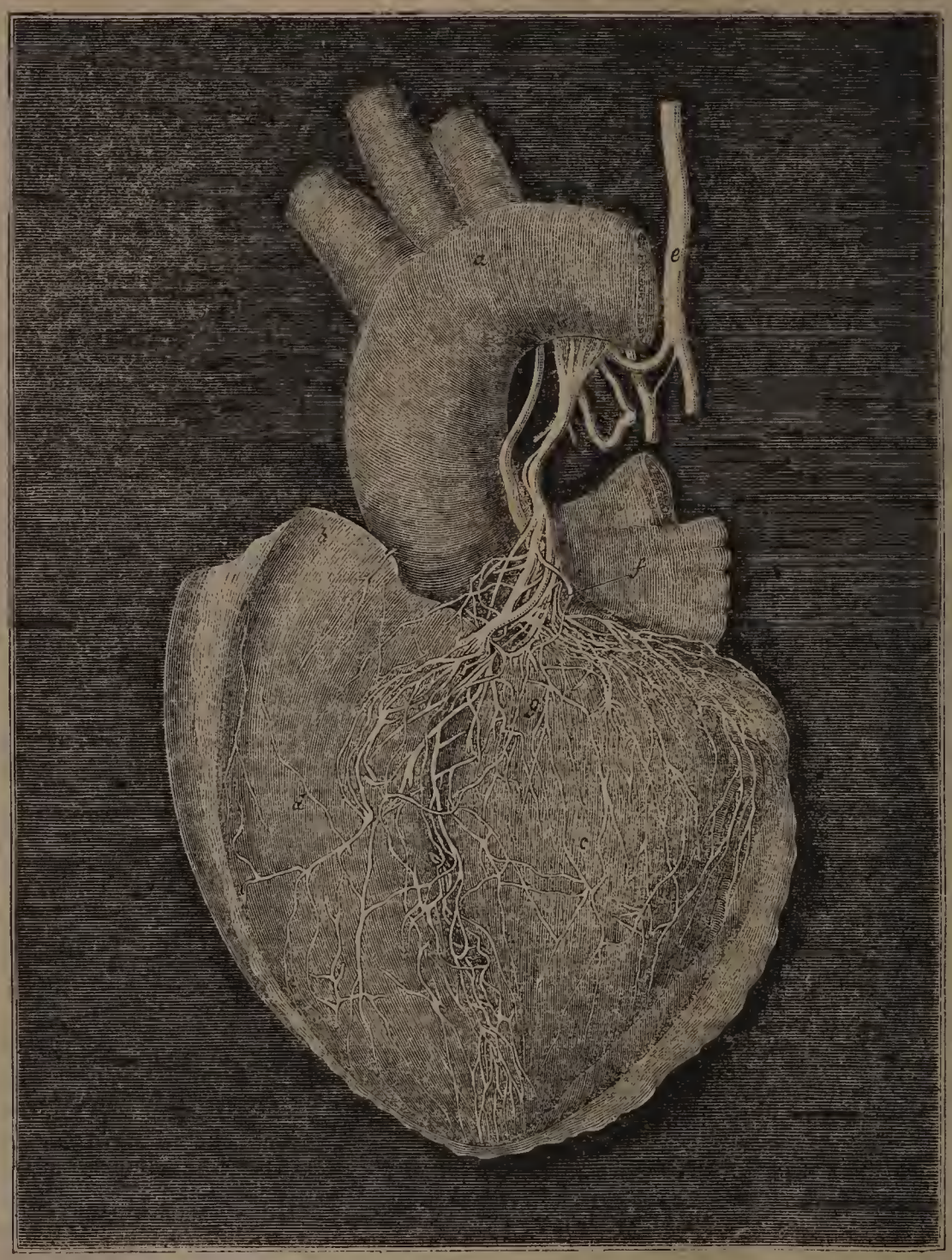
I NOW proceed to relate the circumstances which led to the discovery of the ganglia and nerves of the heart, which enable us to solve the problem of the heart's motion or action. Soon after the uterine system of ganglia and nerves had been demonstrated in 1838, I began to reflect on the analogy which exists between the structure and physiology of the uterus and heart, both powerful involuntary muscular organs, yet greatly under the influence of the brain and all the organs of the body copiously supplied with nerves. It was impossible to avoid coming to the conclusion, from all the phenomena of the heart's action, that it must be endowed with a great system of ganglia and nerves, similar in some respects to those of the uterus, which had not been discovered. I felt the strongest desire to know whether, if the heart, as I suspected, did possess ganglia and nerves like those of the uterus, these nervous structures would be found enlarged in hypertrophy like those of the gravid uterus, and whether those of the left ventricle would be found larger than those of the right, and if the auricles were supplied less copiously than the ventricles.

The constant pulsations of the heart from the commencement to the close of life evidently required a far greater supply of nervous influence than had been represented in the works of the most celebrated anatomists. Thehe art acting many hours in some creatures after being cut out of their bodies; portions of it contracting rhythmically, as it is called, when the heart had been cut in pieces; its movements when they had nearly ceased being roused by galvanism and mechanical irritation; the effects of stimulants and narcotics on the contractions of the heart; the circulation having been carried on in the most perfect manner through the placenta, and all the viscera of a fœtus, which I had seen born without brain and spinal cord; the symptoms in cases of angina pectoris, and sudden death from organic diseases of the heart; the sympathy which exists between the heart, the lungs, stomach, liver, intestines, and above all the uterus; no explanation could be given of all these circumstances without supposing that the heart possessed great nervous centres which had never been seen, and never before suspected to exist.

I had often put this question to the most distinguished anatomists and physiologists, From what source does the heart derive its sensitive and contractile powers? but no satisfactory answer was ever received. I urged several anatomists to undertake the investigation of the nervous structures of the heart, and assured them if they did so that their labour would not be lost. At last I prevailed upon one to undertake the task. When a year had elapsed I went to see what progress had been made, and found that he was just on the point of commencing—of breaking ground; the serous membrane had not been removed from the surface of the human heart.

On the 23rd of April, 1846, an accidental circumstance occurred which made me determine to undertake the labour myself. On that day I went into the library of the Royal Society, where I found the president, a professor of physiology, and a microscopical anatomist. A warm discussion immediately commenced respecting the nervous structures of the uterus, when it was asserted that the uterus did not require such ganglia and nerves as I had described and represented in the Philosophical Transactions, because the heart had no ganglia and few nerves. I inquired of the professor who made this assertion, if he had ever dissected the nerves of the heart, and the reply was that he had never done so; but in support of the truth of what he had affirmed, I was referred to the

PLATE I.



EXPLANATION OF PLATE I.—This represents [the great cardiac ganglionic plexus of nerves, situated between the aorta and pulmonary, which receives branches from the sympathetic, par vagum and recurrent nerves on both sides, and likewise the ganglia and nerves distributed over the surface of the left ventricle of the heart of a child, natural size:—*a*. The arch of the aorta. *b*. The pulmonary artery truncated at its origin. *c*. The anterior surface of the left ventricle of the heart. *d*. The anterior surface of the right ventricle *e*. The left par vagum and recurrent nerve. *f*. The great cardiac ganglionic plexus of nerves, situated between the aorta and pulmonary artery, from which all the principal cardiac nerves are derived.

plates of Scarpa and of Swan, in which you see the muscular structure of the human heart is represented as almost entirely destitute of nerves, from which it might be inferred that the action of the heart did not depend upon nervous influence.

Having procured the heart of a child six years of age, that had died of disease of the brain in St. George's Hospital, and having removed all the blood by immersion in water, it was covered with strong alcohol, and on the 12th September, 1846, I proceeded with these small forceps and needles, and this dissecting lens, magnifying six diameters, to see what could be discovered. In a few hours the serous membrane was removed; underneath were seen numerous branches of nerves with ganglionic enlargements wholly unconnected with the coronary arteries, ramifying on the surface, and plunging into the muscular substance of the heart. These were traced to the base, and found to terminate in a great ganglionic plexus, situated between the pulmonary artery and aorta, into which branches from the par vagum, recurrent, and sympathetic entered. The same evening I showed these ganglia and nerves to Mr. Wharton Jones, and begged him to com-

PLATE II.

EXPLANATION OF PLATE II.—This plate represents a portion of the cardiac fascia and the ganglia and nerves on the surface of the left ventricle of the heifer's heart. *a*. Portion of the serous membrane dissected off from the cardiac fascia. *b*. The cardiac fascia, with the numerous ganglia and nerves seen through it, unlist rbed by dissection *c*. Branches of the left coronary artery, wihth ganglia on the nerves where they cross the blood-vessels.

pare them with the plates of Mr. Swan. He saw the whole surface of the left ventricle, from the base to the apex, covered with an immense plexus of ganglia and nerves. It was now obvious that the ganglia and nerves of the heart had been overlooked as much as those of the uterus, and that no argument against the existence of the ganglia and nerves of the uterus, which had been demonstrated to exist, could be drawn from the assumption that the heart had no ganglia and few nerves.

. The investigation thus commenced was continued without interruption till the month of May, 1847, when I had made dissections of the ganglia and nerves of the healthy and malformed fœtal heart, of the hearts of birds, of the heart of the child at the ages of six and nine years, of the heart of the adult in the sound state, of the human heart, slightly and greatly hypertrophied, and of the heart of the young and adult heifer and horse. These dissections warranted me in drawing the following general conclusions :—

1. That the blood-vessels and the muscular structure of the auricles and ventricles of the heart are endowed with numerous ganglia and plexuses of nerves, which have not hitherto been described or represented in the works of other anatomists.

2. That the nervous structures of the heart, which are distributed over its surface to the apex, and throughout its walls to the lining membrane and columnæ carneæ, enlarge with the natural growth of the heart before birth, during childhood and youth, until the heart has attained its full size in the adult.

3. That the ganglia and nerves of the heart enlarge like those of the gravid uterus, when the walls of the ventricles are affected with hypertrophy.

4. That the ganglia and nerves which supply the left ventricle are more than double the size of the ganglia and nerves distributed to the right right side of the heart.

In prosecuting this investigation into the nervous system of the heart, I found that the great difficulty of dissecting and displaying the ganglia and nerves did not arise so much from their extreme softness, from their close and intimate connexion with the blood-vessels, or from the quantity of adipose matter in which they were embedded, as from the presence of a dense fibrous membrane or fascia, which was interposed between the serous membrane and the muscular coat, of whose existence as a distinct tissue of the heart I had no knowledge when these researches commenced. In the most recent systematic writers on anatomy the heart was represented as consisting of muscular and tendinous structures, blood-vessels, nerves, and absorbents, enclosed between two serous membranes.

On examining this fibrous membrane after the removal of the serous covering, it is found to be possessed of great strength and firmness, glistening, semi-transparent, and resembling in all respects the aponeurotic expansions, or fasciæ covering muscular organs in other parts of the body. It is much stronger over the ventricles than the auricles, and it adheres so firmly where it is in immediate contact with the muscular substance of the auricles and ventricles, that its separation often cannot be effected without tearing up some of the muscular fibres to which it is attached. From the inner surface of this fascia, which I have named the Cardiac Fascia, innumerable strong fibres pass to the blood-vessels, nerves, and muscular fasciculi, and adipose matter. These strong slender fibres, connected with or proceeding from the inner surface, accompany and surround all the blood-vessels and nerves, and they are interlaced together, so as to form a peculiar stroma, if it may be so termed, of remarkable thickness, between the fascia and all the various structures beneath which it invests and binds together in the strongest possible manner. These fibres form a complete sheath around all the arteries, veins and nerves on the surface of the heart, and accompany them as they dip down between the muscular fasciculi, to which these branches are distributed throughout the entire walls of the heart, from the surface to the lining membrane. The cardiac fascia is obviously one of the principal causes of the firmness and strength of the central organ of the circulation of the blood, as it binds together into one mass, and gives support to the muscular fibres, like the fasciæ investing other muscles. The thin serous covering of the heart can possess little power, and add nothing to the strength of the parietes, and probably but for the fascia now described the heart would often yield in all directions.

In a pathological point of view the cardiac fascia is perhaps not less worthy of notice. Muscular structure, it is well known, is not liable to attacks either of common or specific inflammation. It is impossible to avoid suspecting that rheumatic inflammation of the heart has for its principal seat this dense fibrous membrane lying between the serous and muscular coats of the heart, and that attacks of rheumatism of the heart do not commence primarily in the muscular structure. The tunica sclerotica of the eye sometimes becomes inflamed, softens and yields; and from these changes it is known that sclerotic staphyloma and other diseases are the results. Whether in dilatation of the heart a similar morbid change is not first set up in the fascia, and what influence this fibrous membrane has in modifying all the diseases of the heart, future observations must determine.

After the removal of the serous membrane from the surface of the ventricles, there are plexuses of ganglionic nerves readily seen with the naked eye through the cardiac fascia, ramifying on the muscular substance of the heart. If these superficial nerves, situated immediately under the cardiac fascia, be traced backward towards the base of the ventricles, they are found to terminate in a great ganglionic plexus, situated between the pulmonary artery and aorta, to the outer coat of which it adheres much more firmly than to the pulmonary artery. This is the nervous plexus between the pulmonary artery and aorta described by Fallopius more than three hundred years ago. Into this great nervous mass, which enlarges as it passes to the base of the ventricles, branches of nerves enter from the par vagum, recurrent, and sympathetic nerves. From the par vagum or recurrent and great sympathetic, branches pass to the heart behind the aorta and pulmonary artery; but the great ganglionic mass of nerves situated between the aorta and pulmonary artery is properly the root of all the cardiac nerves and ganglia. From the right side of this ganglionic mass, several broad, flat branches of nerves, invested with a soft neurilemma, and accompanied by small blood-vessels, proceed to the right auricle, right ventricle, and to the septum between the ventricles. From the left side of this nervous mass, under the arch of the aorta, several large flat nerves, likewise enveloped in a neurilemma, and accompanied by small blood-vessels, proceed to the left auricle, left ventricle, and the inter-ventricular septum. These large flat nerves pass to the root of the left coronary artery, which they not only completely surround like a sheath, but likewise cover a portion of the aorta near its origin. Many large branches of nerves with ganglia formed upon them, accompany not only all the branches of the coronary arteries to the apex, but all the branches which pass into the muscular substance of the ventricle, and are distributed throughout its walls to the lining membrane and columnæ carneæ. From the deep nerves and ganglia of the ventricles, the muscular structure is chiefly supplied. From the great mass of nerves situated around the roots of the coronary arteries and the aorta, there are numerous branches of nerves with ganglia distributed over the muscular walls of the ventricles of the human heart, and which do not accompany the blood-vessels.

On the portions of the ventricles which are devoid of fat, these ganglia and nerves are distinctly visible to the naked eye, through the serous membrane and cardiac fascia, and present a very remarkable appearance. These superficial cardiac nerves are remarkably soft, flat, and somewhat semi-transparent, as Scarpa has described, with a grey colour, and the smaller branches are enveloped in a soft sheath or neurilemma, which has been regarded by all anatomists as an essential constituent tissue of the nervous structures. Towards the left side and apex of the left ventricle these nerves lie in grooves or depressions in the muscular substance, and they spread out into ganglionic enlargements, from which laterally innumerable small filaments are sent off to the coats of the blood-vessels which sink deep into the substance of the heart. It can clearly be demonstrated that every artery distributed throughout the walls of the uterus and heart, and every muscular fasciculus of these organs is supplied with nerves upon which ganglia are formed, and which are the sources of all their contractile powers.

The preparations of the ganglia and nerves of the heart from which this description has been drawn, and the engravings from the Philosophical Transactions, are now placed before you. With the dissecting lens the ganglia and nerves are far more distinctly seen than with the naked eye. There is a

very correct drawing of the ganglia and nerves of the heart of the race-horse, not engraved. (Placed also upon the table.)

This anatomical demonstration of the ganglia and nerves of the muscular substance of the heart completely overthrows the last remaining argument employed by those physiologists who still defend the doctrine that the irritability and contractility of muscular fibre are independent of nervous influence. This demonstration of the existence of numerous ganglia on the surface and throughout the walls of the heart, further clearly indicates the source of the actions of the heart as an entire organ, and how its detached parts can continue to contract after its total separation from the body. It likewise furnishes a satisfactory explanation of all the phenomena observed in the progress of all the functional and organic diseases of the heart.

The circulation of the blood could not have been carried on and life maintained, if the auricles and ventricles of the heart had not alternately contracted and relaxed as they do. Before these ganglia and nerves of the heart were demonstrated, it was impossible to explain the cause of this action or motion of the heart. By some this had been referred to the influence of the brain or spinal cord, while others believed that the contractions of the heart did not depend upon nervous influence. It must now be evident that there is nothing in the action of the heart more mysterious than in the action of the diaphragm and intercostal muscles, and all the muscles connected with respiration and digestion, the larynx, pharynx, œsophagus, stomach, intestines, bladder, uterus, and all the other voluntary and involuntary muscles of the body ; the sensitive and contractile powers of the whole muscular system being derived from the nervous structures with which they are endowed, and which are all intimately connected with the brain and spinal cord,—constitute in fact one great system.

ORIGINAL COMMUNICATIONS.

ON THE MODE OF VISION IN CASES WHICH HAVE BEEN OPERATED ON FOR UNILATERAL CATARACT; AND ON THE QUESTION, WHETHER IT IS ADVISABLE TO PERFORM UNILATERAL CATARACT OR ARTIFICIAL PUPIL OPERATIONS WHEN THE OTHER EYE IS HEALTHY?

By Dr. A. v. GRAEFE (a);

The objection that, when the diseased eye has again recovered its visual power, the difference of refraction would prevent any common act of vision ; and hence that, even the best success of the operation for cataract in one eye, the other being healthy, in no way benefited the patient, has been in many ways removed ; even important injuries and disturbances have been feared from such operations ; that the dissipation-circles of the hyperpresiyopic (operated) eye might cover and confuse the clear images of the other, in which case the patient would be compelled either voluntarily to close one eye, or, by a muscular contraction, to bring it into a squinting position.

Now, since in a very large number of cases (more than 50) where I performed the operation for cataract on one eye, the other being healthy, I essentially traced none of these evils ; it became in a certain manner my duty, accurately to determine the *rôle* which the operated eye plays in a common act of vision. It now appeared that the relations were extraordinarily various.

1. In a great number of cases, the picture, which depends on the operated eye, will be excluded from perception when both eyes are opened ; as, indeed, also frequently happens when the refractive powers of the eyes are different. For this the proof is afforded by no absolutely sharp fixation in the accommodation and associated motions being induced in the operated eye. An absolutely sharp fixation is, indeed, connected with a perception of the retinal impression, since the feeling of muscular contraction can only approximately regulate the position. Hence we find that all individuals, who only employ one eye in the visual act, direct the second eye only to a certain extent (b), and for certain positions of the object in view ; while, for other positions less easy to the muscles—for example, in forced approximation of the object, or in looking upwards, it visibly varies from its proper position. Still more accurately may this exclusion of one eye from the visual act be recognised ; in that by holding prisms before it, we obtain neither double images nor a deviation of the visual axes. But one of these cases must take place, if the retinal impression of the one eye were melted with that of the other in a common impression ; either, the former position being preserved, an eccentrical image would arise (and then separate itself as a double or accessory picture from the common impression), or by an arbitrary change of the position of the eyes, the refractive action of the prism must be so counteracted, that the refracted ray of light may fall in the direction of the visual axis, and therefore on the macula lutea. If neither of these conditions occurs, we may conclude that an active participation of the second eye in the qualitative perception does not take place. The absence of perception of the images, which proceed from the operated eye, will induce some dulness of this eye, and the relations will be just such as occur in so many individuals who, on account of differences in the powers of refraction, or abnormities in the refracting media, or one-sided weak sight, only employ one eye for perception. The excluded eye becomes to a certain extent dull, as a consequence of disuse ; but this will yield to methodical separate exercise, or spontaneously when the previously healthy eye is rendered blind by some accidental affection.

This form of unilateral weak sight is, indeed, well known to every ophthalmic Surgeon ; still it deserves to be brought prominently forwards, because in our daily practice we hear only too often therapeutical and prognostical errors in regard to it. Thus it happens, to keep myself to one of the most frequent examples, that individuals have one eye alone affected with a slight corneal opacity, but with a degree of weak sight quite out of all proportion. If the diseased eye is exercised either by itself, or with proper convex glasses, the visual power is again restored to a certain extent, obviously without the corneal opacity having undergone the slightest change. If now any medicines have been accidentally applied, the improvement obtained will not unfrequently, though erroneously, be attributed to a clearing of the cornea. The relationship is here, that the corneal opacity, through weak sight caused thereby, or on account of differences in the refractive power (*e.g.* through increased arching of the cornea), or owing to the dissipation of light accompanying it, was the original cause of the exclusion of the eye from the common visual act ; and that this exclusion in its turn caused an increase of the weak sight. Therefore, exercise of the affected eye will restore the visual power, so far as is compatible with the corneal opacity. What is true of corneal opacities, is equally so of opacities of the lens, amblyopias of the most various kinds, differences of refraction, in short, of all relations which lead to the exclusion of one eye. Besides, we must remark that this weak sight, resulting from disuse of one eye, *per se*, separated from the material disturbances which have caused it, never tends to attain a high degree, and that the conductibility of the retina remains perfectly intact. Never ought we to consider amaurotic amblyopias, where only the coarest objects can be discerned, and with convex glasses letters can no longer be recognised, as entirely the effects of disuse. An exception to this rule could only occur when the exclusion has taken place during the earliest years of life (c). The integrity of the conductibility of the retina is shown by :—

1. The field of vision being undiminished in extent.

(a) From the Archiv für Ophthalmologie, Band II. Abtheil. II. s. 177. Berlin, 1856.

(b) The proof lies in the variation of position, which occurs in this second eye, when the eye used in the visual act is closed. This variation is often very small, only to be determined by great attention or telescopic observation, and whose direction cannot always be at once determined, because short, in some degree seeking, motions in opposite directions succeed one another before it arrives at fixation.

(c) I have touched on this subject once before (A. F. O. Bd. I. Heft I. S. 329), and noticed the difference between the exclusion of one eye, *e.g.* in unilateral cataract, absence of light, closure of the pupil, etc. and exclusion (from the perception) with images formed on the retina. I then concluded from a cataract case, which, after being sixty years matured, had been operated on by extraction, that the former cause created very little or no dulness. I could now add many cases of cataract, of forty to thirty years' duration, in which the relations of vision were just similar.

2. The eccentrical vision, relatively to the central, having preserved its clearness, or having rather somewhat increased.

3. The disturbance depending only on an increase of the visual angle being necessary for recognition; hence that recognition increases proportionally to the increase of the visual angle. On this is based, as is generally known, the beneficial influence of convex glasses in amblyopia from disuse, whereby we must naturally abstract from complications with accommodation diseases. The symptoms of an unaltered conductibility of the retina are exceedingly important in regard to the amblyopia resulting from disuse; for, though they do not diagnostically characterize the latter, but yet occur in other forms of disease, they still afford clear marks of distinction from many groups of amblyopia. The weak sight of the squinting eye cannot simply depend on disuse, because immediately after tenotomy a considerable improvement often occurs; but that the exclusion has a considerable share in this form of weak sight cannot, on the other hand, be doubted, in that we can obtain some improvement of the visual power by proper separate exercise of the squinting eye, without any alteration of the strabismus.

Far more interesting relations appear in other cases of unilateral cataract operation, namely, where the affected eye is cotemporaneously employed with the other in the usual act, without any inconvenience perceptible to the patient originating from the enormous difference in refractive power. I have repeatedly observed this in young individuals, who had one eye blinded by soft cataract, and again restored by linear extraction. Already in rough trials I had found perfectly sharp fixation, even with the greatest approximation of the object. The participation of the operated eye in the visual act was most clearly shown by an accurate trial of the criteria already mentioned. In all positions of the object in view was the operated eye in fixation, for not the slightest displacement of the visual axis occurred, when the healthy eye was closed. Every doubt, which might still remain, from the difficulty of perceiving slight contractions, was perfectly satisfied by the application of prismatic glasses. If a prism between six and ten degrees, with the basis outwards, was held before the operated eye, so as to let it fix a light many feet off, the light appeared to the patient single, but there immediately occurred under the prism a converging strabismus; the prism being removed, the visual axis receded outwards to its former position. If a prism between ten and sixteen degrees were taken, and held in the same way with its basis outwards, the light being at the same distance, no arbitrary strabismus occurred, but the patient saw direct (gleichnamige) double images, whose distance corresponded, under these relations, to the refractive power of the prism. If the light was brought nearer, to from ten to six inches, the prism being in the same position, the double pictures could be brought together, during which process a considerable arbitrary strabismus internus was determined; if now the light were again removed, the single vision could be preserved, as far as a limit varying from two to ten inches (d), according to the angle of the prism, whereupon double vision again arose, and as the images separated, the visual axis receded outwards from its squinting position. If the prism were placed with its basis inwards, instead of outwards, even a very weak prism (four to six degrees) caused a divergent strabismus, stronger prisms double vision with crossed images; even the weakest prisms, applied with the basis downwards or upwards, immediately educed double pictures standing one upon the other. Hence not the slightest doubt remained that in these cases the picture of the operated eye was united with that of the healthy one in a common perception, a fact which, with such a difference in the powers of refraction, of course appeared somewhat problematical. The circle of dissipation, which is afforded by the operated eye, must, in relation to the sharp vision of the healthy eye, be so diffuse, that we can scarcely understand, how a common act of vision is possible without disturbance of the visual acuteness. Besides, all the advantages of common vision were developed in these cases; above all things, a very sure estimation of distance and bulk, which disappeared when the operated eye was closed.

This fact is a fresh proof, how much the judgment influences the visual act, and how it can disregard imperfections. The punctum cæcum, oblique double images, etc., are treated in the same way. A somewhat similar condition is found besides in the common cases of different refractive powers in the two eyes; here also sharp images never arise on both sides. Even then, if the reach of accommodation partially coincides with that of the other eye (the furthest limit of the short-sighted eye being more distant than the nearest limit of the far-sighted eye), still in binocular vision such a condition of accommodation is never found. There is right between the impulses of accommodation an extraordinary sympathy of the two eyes, and this cannot, with the design of obtaining equally sharp pictures, be so interrupted that one eye is accommodated to the region of its nearest limit, the other to that of its most distant limit. Experiments also prove that the conditions of accommodation under such relations of the two eyes are always different, and that invariably only a single eye affords a sharp image. By closing this eye, a perfectly exact direction of the refractive media occurs in the second for the first time, as is in part proved by the subjective sensation of the patient, in part by objective appearances, especially a change in the direction of the visual axis of the covered eye (Vid. A. F. O. Bd. ii. 1, S. 167). In spite of all that, in a considerable number of such cases, both eyes actually join in common in the visual act, and the disturbances of the dissipation-circle of one side are therefore suppressed, as in the case already mentioned.(e)

That the different illumination of the images does not exclude the common use, is a perfectly settled fact, which still is not so strange as the point about which we have been speaking. On the contrary, the compensation of the refractive powers by proper glasses, possible in many individuals with different accommodation, furnishes an analogon. To wit, if we place a myopic eye, by the addition of a concave glass in the same refractile condition as a second normally refracting eye, still there will always be a difference in the size of the retinal images of the two eyes. In accordance with dioptrical laws, the intersection-point of the rays (*knotenpunktregion*) will lie nearer to the retina in the eye combined with the concave glass, and hence the pictures will be smaller. Inverse will be the relation when a presbyopic eye, by combination with a convex glass, gains normal refractive power; the point of intersection will then lie nearer to the cornea than in the healthy eye, and therefore larger images be formed. Notwithstanding these differences, which by calculation seem to be not very important, a compensation is occasionally possible, even in individuals, one of whose eyes carries a convex, and the other a concave glass; again showing the patience of the visual act with inaccurate optical relations. Besides we may here remark, that such a capability of compensation does not so generally occur as many Physicians, and especially spectacle-makers, think. We are very often convinced by accurate investigation, that notwithstanding appearances, still only the impression of one eye is used in vision. In very many patients, the different size of the images creates such disturbance, that we are obliged to resign the idea of compensation, and in practice prefer the unilateral use, with separate exercise of the excluded eye.

Let us now turn from these physiological facts to the practical question, What should we think of unilateral cataract operations? If afterwards we could reckon on a common use of the eyes, there would result to the patient the great benefit of a safe valuation of distance and bulk, properties chiefly dependent on binocular vision.

My observations, indeed, are not yet sufficiently extensive to determine numerically how often after unilateral cataract operations a common use of the eyes occurs, and under what more special relations we may have the greatest expectations of this result. In many young individuals operated on by me for unilateral cortical cataract by linear extraction, I found the same relations of binocular vision. In older patients I have found it once only, but must at the same time admit that opportunities very seldom occurred, for I did not willingly perform a flap extraction, and never a reclination on a single eye, the other being healthy.

Let us now, till statistics furnish a more accurate determination, regard the occurrence of binocular vision as a happy exception, and consider what advantages generally ensue to the patient from unilateral cataract operations. The first is the cosmetic improvement. This would only induce us to

(d) The measures are throughout German.—Trans.

(e) We know very well that, besides this set of cases, another certainly still more numerous occurs, where, with differences in the refractive powers, one eye is excluded from the common visual act; and hence the relations are divided just as after unilateral cataract operations.

perform a perfectly innocuous operation, *e.g.* a linear extraction in young individuals, who by their visible monocularity are often essentially impeded in their career. Thus even in amaurosis from retinal separation, I have performed the linear extraction of the consecutive cortical cataract. Secondly, the widening of the field of vision, a very important advantage, because with it are connected a power of far freer observation, and a symmetrical position of the head. Thirdly, though not constant, a certain increase in the energy of the visual power, which I have already mentioned in regard to the squinting eye, and about which I shall still have to make a few remarks, when treating on unilateral artificial pupil.

In consideration of these benefits, no man would declare himself opposed to unilateral cataract operations; if, on the other hand, certain considerations had not arisen, which must now be more closely investigated. Such are immediately founded on the uncertain success of cataract operations. In young individuals this consideration is of no value, because we consider the happy removal of the cataract as almost certain; this is equally true of properly moderated discisio per corneam, and of linear extraction; both, when clearly indicated, are free from accident. But in more elderly persons, where, owing to the presence of a hard lens-nucleus, the methods of operating just mentioned are virtually excluded, and it is quite a matter of flap-extraction *versus* dislocation of the lens; the result is always more or less doubtful. We shall sometimes have after flap-extraction suppuration of the flap, after reclination irido-choroiditis. In the case of restoring sight to the perfectly blind, these accidents are not considered as contra-indications, because they are quite overbalanced by the favourable chances, especially in extraction. But if, on the contrary, the question be only about a single blind eye, even in the most favourable case the benefit of binocular vision is incomparably little when compared with the restoration of sight altogether, and hence every unfavourable chance will relatively weigh very heavily in the scale. Reclination should here be entirely proscribed, for cases occur, in which internal inflammations after reclination lead to morbid processes of the healthy eye, just as irido-choroiditis after penetrating foreign bodies sometimes induces a sympathetic affection of the other eye. It is true that these cases are rare, so rare that experienced practitioners have denied their occurrence. I myself have seen four such cases in the practice of others; in one case irido-choroiditis broke out immediately after the performanee of unilateral reclination; in the others, from three weeks after to months, in clear connexion with exacerbations of the chronic inflammation in the operated eye. Now even if destruction of the operated eye, early performed, should prevent the ruin of the second, in the same way as in traumatic irido-choroiditis, still the simple occurrence of a sympathetic affection in the second eye, however rare it may be, is sufficient to condemn reclination in one eye, the other being healthy. Even without any actual material disease of the second eye, the tedious internal irritation of the one operated by reclination, often quite prevents the use of the sight: and in this case also the patient suffers great inconvenience. In this respect it is different with extraction. I have never seen accidents arise in the second eye through suppuration of the flap, and so far as I am aware, at present no other result has been found by any observer. The mischances of extraction are therefore limited to the eye operated on; even the most unfavourable result will never lead to tedious internal inflammations, which annul or constrain the use of the healthy eye, as happens in reclination. Hence the unilateral flap-extraction is in general not advisable with a second healthy eye, because in practice the advantages are not found to be in a favourable ratio to the mischances, while unilateral reclination is most definitely to be abandoned. The former may seem indeed admissible under certain circumstances; thus when patients through the idea of being monocular, of becoming blind in the event of double disease, etc., are morally very depressed, and through thinking the possible occurrence of suppuration of less value than the existing blindness, earnestly beg the Surgeon to operate. Other imperfections have been expected to occur after the fortunate restoration of the cataractous eye. It has been at once feared, that the different powers of refraction would essentially interfere with the duration and constancy of vision. This effect I have never found in more than fifty unilateral cataract operations. The patients could work at least as well, and for as long a period as before.

Secondly, dazzling of the operated eye by clear light has been pleaded; this I have observed in perhaps a fourth of the cases during the first few weeks or months. But it always yielded spontaneously, and therefore deserves no further consideration.

Thirdly, squinting of the operated eye has been feared. I have seen only two such cases in a cosmetical sense, *i.e.* a striking aberration of the visual axes developed; and indeed already perceived it during the weeks immediately following the operation. We find the same relations here as are general in strabismus with different powers of refraction. Strabismus may thence originate, but is by no means a necessary consequence, because both a common use of the variously refracting eyes, and a suppression of one retinal impression, with an approximately proper position of the affected eye, can occur. If now we mention, passing over the rarity of this result, that a strabismus dependent on varying refractive powers can still be cured by tenotomy, though its causes persist: further, that strabismus commonly enough occurs in these cases, without any operation having been performed; certainly the practitioner ought to find here no contraindication.

Fourthly, hints are thrown out of double vision, caused by a slight anomaly of one eye, through the disturbing circles of dissipation. This also is by no means common; I have only observed it thrice. In two of these cases it was explained by a convergence of the cataractous eye, which had existed previously to the operation, and which spontaneously ceased without any important deviation ever having been developed. By means of a red glass held before the sound eye, double images could be seen at a later period, and almost at their original distance. Here we have the occurrence which is so common after strabismus operations, where the direct double images, proceeding from a slight pathological convergence, are soon quite overlooked, a suppression of one image being indeed induced. There occurred in the third case crossed double images, corresponding to a slight divergence of the operated eye. I am unable to say whether this divergence existed previously to the operation or not, because every criterion for an exact position is naturally wanting, when the visual act cannot be performed. This double vision proved very obstinate, and still troubled the patient eight weeks afterwards.

No astonishment will be felt at this; if what I have elsewhere explained about the difference of crossed and direct double images is remembered. As to this point, I can only support my former assertions by fresh examples; thus I found some cases where I could artificially educe crossed double images, while in direct a suppression immediately occurred. Cases operated on for strabismus, where the binocular convergence only proceeded over a very limited region, very often produced spontaneously the crossed double images, arising in the median plane by great approximation of the object; while the direct double images, to be suspected on the further side of the limits of convergence, were with difficulty to be educed even by coloured glasses. Besides, healthy persons, who try their physiological double vision, more easily perceive the crossed than the direct double images, and by the former are at times more confused, rendered dizzy, etc.

Now since the use of prismatic glasses proved that a blending of the two impressions did not in general take place, I changed by a tenotomy of the externus the crossed double images into direct, (naturally with a moderate mutual distance so as not to cause a visible strabismus convergens,) and then the double vision, as in the former cases, rapidly vanished. (f)

Fifthly, it might be maintained that by the suppression (physically taking place), of the retinal impression of the operated eye, its vision would become still weaker than if the influence of the light was entirely excluded. After what we have already said about weakness of vision from disuse, we ought not entirely to reject this argument; still it is easy to oppose it by separate exercise of the operated eye with convex glasses.

From all this we may conclude that, *in summa*, a cataract operation on a single eye affords important benefits, but no

(f) I was interested by a number of cases where a divergent strabismus clearly existed before the operation, and gradually disappeared after the restoration of sight, the double pictures at first seen being driven into one another by a more powerful action of the rectus internus.

considerable disadvantage, and is therefore always indicated, when success can be calculated on with certainty.

The question is, of course, quite different, when the second eye is not perfectly healthy, but likewise in an advancing cataractous condition. Methods of treatment will then be at once indicated, though their success cannot be considered perfectly certain. We must obviously esteem it a great benefit to diminish the time, often so depressing to the patients, during which, through loss of their sight, they lose more and more their independence. We need only consider that the operation acts in no way injuriously on the still-seeing eye, and hence, under these circumstances, I would never advise reclination; on the contrary, it is my usual practice, if it agrees in other respects with the wishes of the patient, to perform the flap-extraction on one eye when the cataract in it is mature, but in the other still only in process of development. The chances of the operated eye depend in no way on the vision of the other; and we might wish for such a successive development of the disease in the two eyes to take place, so as to be generally able to follow this process. Unfortunately, such is not the case; the period of maturation of senile cataracts, during which the vision is already almost gone, but the cortical masses yet imperfectly troubled, frequently lingers so long, that the cataract becomes first operable in the eye earliest affected, when the patient possesses only the slightest vision with the eye last diseased.

As a conclusion, we will add some considerations on coremorphosis in a single eye, the other being healthy. Similar objections have been made to this as to the unilateral cataract operation; and although they have now been combated from many sides, especially by Desmarres, still I may submit my decisive results; for, under these relations, I have made more than three hundred artificial pupils, and have not neglected to study the *rôle* of the operated eye in binocular vision.

It is, above all things, thoroughly inconsiderate to make such an objection as that, because the pupil is eccentric, either the operated eye must be drawn into a squinting position, or exclude itself from common vision. The eccentricity of the pupil will act on the incidence of the light, just as if we cover the middle division of a much-dilated pupil. By this, a portion of the incident light is excluded, just as by a central opacity of the cornea; but, with proper relations of accommodation, the light coming from an object placed in the prolonged visual axis will always unite on the macula lutea. Experience has also satisfactorily proved to me that binocular vision occurs without strabismus in all possible forms of pupil eccentricities, whether congenital, or caused by accident, disease, or operation. Indeed, we fully expect the restoration of such cases, including all accessory benefits, provided the visual power of the eye is to some extent exact, the lens preserved, and at the sides nothing to hinder the action of the eye-muscles. The latter especially is of importance; for the energy of the inner eye muscles, in regard to the movements of accommodation, is diminished in almost all one-sided blindnesses.

The relations of the visual axis, after the formation of an artificial pupil, are besides very various, so as indeed to require a full analysis. Only the following facts can here be briefly pointed out, so that the above law, "that an eye provided with an eccentrical pupil directs the visual axis to the object for fixation," may not be misunderstood.

1. This law in its full extent is limited solely to pupils which either lie moderately eccentrically, or still have one division reaching to the middle of the cornea. In perfectly eccentrical pupils, which in their whole extent lie opposite the edge of the cornea and crystalline system, a different method of vision generally occurs. Then the light arising from the prolonged visual axis, falls so obliquely on the surfaces of separation of the refracting media, that it becomes too much weakened by reflection to serve for vision, the more because it is besides most imperfectly united on the retina. In these cases we have a concurrence of central with eccentrical vision; the latter being obtained through the light when the visual axis shoots past it, falling perpendicularly on the side of the cornea corresponding to the pupil. Then we often see the patient change from the one position to the other; sometimes employing central vision with relatively slight intensity of light, at others eccentrical vision with relatively greater intensity, and choosing the one or the other, according to the various demands of vision. In these excessively weak eyes I have hitherto never observed vision in common with the healthy eye.

2. Exceptions occur to the law, from the curvature of the cornea being changed by adhering leucomata, etc. Here, on account of the altered relations of refraction, the light incident in the direction of the visual axis will no longer arrive at the macula lutea; but a beam passing in another direction will serve as the axis-beam for central vision. There will then naturally occur an aberration of the visual axis in fixation.

3. In a similar way, an oblique position of the lens can lead to an aberration of the visual axis. To this occurrence we have already elsewhere, (vid. A. F. O. Bd. i. 2, s. 291), when speaking about Synechia anterior, directed attention.

4. We refer in general not to slight, but to clearly proveable aberration, because the physiology of the present day has clearly shown, that under normal relations, it is not the axis of the eye, but one striking the cornea to the inner side of the anterior pole, which is directed to the object in view. This fact perhaps should be employed, in the explanation of certain differences in the visual power, according to the direction of the pupil-eccentricities. That, *e. g.* pupils situated peripherically (g) outwards afford, cæteris paribus, less power of vision, than those situated inwards, is indeed a fact, but is still not satisfactorily explained. The acuteness of vision, if we abstract from all relations of position by the muscles, must be perfectly identical, provided that the axis of the eye actually coincides with the line of vision, for then all parts of the corneal periphery would be symmetrical in regard to dioptrical relations. (h)

If no binocular vision occurs after the formation of an unilateral artificial pupil, a trial of the double images, perhaps artificially educed, will determine how far such a state would be possible. Thus I remember two cases, where with a pupil situated to the outer side, and very satisfactory vision, double pictures were educed, not indeed spontaneously, but by covering the healthy eye with a violet glass. At a distance, these crossed double images were very close to one another, but by approximation, they gradually separated. A tenotomy of the external rectus, in one case total, in the other partial, acted here in a similar manner to what it does in insufficiency of the internal eye muscles; and afterwards binocular vision ensued. In the case in which total tenotomy was performed, a slight pathological convergence with direct double images, periodically emerging, existed throughout the earlier period for distant objects. The diplopia gradually disappeared, but, even a quarter of a year later, a trace of pathological convergence could still be shown; on the other hand, the patient fixed from 6 — 2 inches, and had the acutest valuation of distances within these limits. In the other case, perfect binocular vision was restored by tenotomy.

In very many cases (I believe in the mass, and constantly in very eccentrical pupils) no common use takes place after the formation of unilateral artificial pupil, and we can in no way succeed in educing artificial double pictures. There remain, then, only the general benefit, namely, widening of the field of vision, and a not quite constant increase in the energy of the visual powers.

I mentioned the latter occurrence first in regard to the squinting eye (A. F. O. Bd. I. Abth. I. p. 89), and referred it to the greater quantitative excitement of the retina, since it is not founded on the perception of the double light—impression. Since that time I have examined a great number of diseased and healthy persons, and found the following results:—

1. The phenomenon that a less visual angle is necessary for distinction, when both eyes are opened, occurs in many individuals, in many not; and I know no reason at present for these varieties having hitherto found no constancy in the nearer relations.

2. When the phenomenon in question is observed in the healthy, it is, for the most part, to be explained by quantitative excitement of the second retina, for the greater visual acuteness generally remained when the second eye was partially

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(g) I have not been able to prove such differences in moderate eccentricities.

(h) Herein I presuppose the case of central vision; in eccentrical, differences in the sensibility of the various, though symmetrically placed around the macula lutea, parts of the retina, might be accounted an explanation; but these are yet unproved. Besides, the comparison of impressions of eccentrical vision are very deceptive, owing to their weakness; and from such cases no conclusion as to the benefits *versus* injuries of such pupil eccentricities could be drawn.

rose to 24,487 ; and in the present year, 1857, the number is further augmented to 27,693; showing an increase from the year 1852 to 1857 of 6535. In the same period the number of private patients has risen from 4430 to 4687, showing an increase of only 257. This increase in the number of pauper lunatics is not owing altogether, or even principally, either to the increase of the population or to the greater spread of insanity, although both these causes have of course contributed to the result ; but it is mainly due to the construction of the magnificent and costly asylums which have been built in various parts of the country, and which have attracted within their walls a great number of imbecile and demented persons, who would otherwise have been kept at home with their friends. In former times (and to a great extent this is the case even at present) there were numerous insane persons, who, being harmless, were maintained at the cost of their relatives, and this was especially remarkable with idiotic children, who of course form no inconsiderable portion of the helpless population of the country. Now, the friends or relatives of such afflicted beings would undergo any possible sacrifice rather than send them to the workhouses where they were formerly confined ; but now that splendid edifices have risen for their reception, and now that the humane treatment has almost entirely superseded that which was once in vogue, a very natural anxiety is manifested to throw the burden of maintaining these unfortunate beings upon the counties and the parishes, by placing them in a position where they may spend the rest of their lives in comfort and security.

The result of all this has been, as we are told by the Commissioners, that the existing accommodation is quite insufficient for the numbers applying for admittance ; and what is of still greater importance, it is found that the costly asylums are filled with the chronic cases from the workhouses, which in their very nature admit of no cure, while the more recent and curable cases are necessarily excluded. The Hanwell Lunatic Asylum, which was originally built for the treatment and relief of insanity as a temporary malady, has become an overgrown receptacle for cases which are utterly hopeless ; and we find that out of a thousand and nineteen patients in that institution at the end of last year, the disease had been of less than one year's duration only in twenty-six, and of less than two year's only in seventeen.

The rapid increase of pauper lunatics is remarkably exhibited in the history of the two large asylums of the county of Middlesex. In 1831 the Hanwell Asylum was built for 500 patients, and it was thought that it would be large enough to meet the wants of the county ; but in six years it was enlarged so as to contain 300 more, and at the present time it contains upwards of 1000 patients. The Colney Hatch Asylum was opened in 1851 for the reception of upwards of 1000 patients, but in less than five years it became necessary to supply further accommodation, and at the present time this Asylum contains more than 1250 inmates. Notwithstanding this large number of persons provided for in these two Asylums, it was found that at the end of the year 1856 there were upwards of 1100 pauper lunatics belonging to the county who were unable to obtain admittance.

Under these circumstances it has become necessary to provide still further accommodation, and two plans were obviously open to the authorities who have the control of such matters, viz., to build a third asylum, or to enlarge those which already exist. The Commissioners in Lunacy favoured the former plan, but the Committees of Hanwell and Colney Hatch have adopted the latter. It has been determined to enlarge Hanwell so as to contain 600 more patients, and its full complement will then be 1620 ; and accommodation is to be provided for 713 additional patients at Colney Hatch, which will then contain nearly 2000.

We think that the Commissioners were correct in opposing to the utmost of their power the proposal to enlarge the existing Asylums. Those vast edifices are too large already ; the due classification of the patients is rendered impracticable by their great numbers, and the Medical treatment of each case is equally impossible for the same reason. There are only two Medical Superintendents to each Asylum, and we should add, that they are most inadequately remunerated ; so that it is unreasonable to hope, under existing arrangements, either that Medical men of the first eminence will accept the appointments, or that those who do accept them will or can efficiently discharge the duties.

Reverting to the treatment of insanity, this must be necessarily unsatisfactory while the large Asylums are crowded with the idiotic, the demented, and the incurable cases ; and while they have no available space for those which are recent and curable. The Commissioners find themselves in a difficulty in proposing means for obviating this inconvenience ; and they are driven to propose the expedient of retaining the more harmless class of pauper lunatics in the workhouses, and thus making room in the County Asylums for the more severe and intractable cases of insanity. But they are strongly opposed to the appropriation of any part of the workhouses to the purpose of Lunatic wards, as they consider that such a system, although economical to the rate-payers, is entirely inadequate to the modern exigencies of insane patients. The Commissioners support their opinion as to the unsuitableness of the workhouses for the treatment of insanity by reference to their Reports, made at various times, on the workhouses of Plymouth, Bolton, Blackburn, and St. Pancras ; and it must be admitted that, in all these establishments, the accommodation provided for Lunatics is of a very reprehensible character, although, in certain instances (as in St. Pancras) some improvements have been lately made.

Thus it will be seen, from the causes to which we have alluded, that the expensive Asylums of Hanwell and Colney Hatch, and it might be added, many others throughout the country, have contributed but little to our knowledge of insanity, or to the cure of that malady ; and, while they are governed by lay magistrates, who are subjected to no superior authority, and who too often curtail the powers, as they always limit the emoluments, of the Medical Superintendents, perhaps no other result could fairly be anticipated. At any rate, a very costly experiment has been tried, and it cannot be said that it has proved successful ; except inasmuch as it has provided splendid mansions for a class of unfortunates who would have otherwise been left to the tender mercies of the masters of workhouses, or the equally disadvantageous circumstances surrounding them in their own miserable homes.

THE WEEK.

We have received the first number of the Transactions of the Medical Society of King's College, London. This Society has been in existence since the year 1833, but as yet, no attempt has been made to present any enduring record of the papers read, or of the cases and specimens described by the members. The volume is introduced by a very modest preface, in which the editor disowns any claim to superior merit on the part of the contributors, and begs indulgence for the faults of youth and inexperience. It is made a subject of regret in the preface (and in this regret all cultivators of Medical science must join), that the Medical Staff of King's College Hospital, like that of other Hospitals, does not annually publish some account of the experience obtained in the

wards. It is inconceivable what sources of information are thus withheld from the world, which might otherwise be communicated from the great storehouses of Medical and Surgical practice, that are to be found in our large London Hospitals. The volume now published contains a most sensible Introductory Address by Dr. Hyde Salter, in which a considerable amount of quiet humour is mingled with some valuable advice upon the uses of discussion, and the advantages to be gained by young Medical men in joining Societies for mutual instruction. The papers which follow are numerous and varied, and the Clinical Record embraces the history of fourteen cases, which present many points of interest. The production is very creditable to the past and present students of King's College, and we wish that every success may attend their efforts.

We alluded last week to the first meeting of a new society for the promotion of Social Science, announced to take place at Birmingham on the 12th of October, and we stated that one of the departments would be devoted to the subject of Public Health. The President of this department is Lord Stanley, and the Secretaries are, Dr. Headlam Greenhow, Mr. William P. Marshall, and Mr. H. W. Rumsey. The subjects of discussion will be classed under three heads: viz., the Condition of the Public Health, the causes which modify it, and the means calculated to improve it. Under the first head, papers descriptive of the general state of health of particular districts will be classed, as well as the changes which occur in the same districts under different circumstances, and the special diseases to which particular localities and modes of life are most liable. Under the second head will be referred papers that treat of the causes which affect the Public Health, and the mode of their action; such as climate, soil, locality, habitation, diet, occupation, station, or habit. Under the third head, which relates to the improvement of the Public Health, will be classed communications suggesting plans for Hygienic Reform, whether by means of legislative enactments, by removing the causes of disease by engineering or other mechanical appliances, or by the prevention of disease by appropriate precautions. It is requested that early notice of papers intended to be read before this department may be addressed to the General Secretary, Mr. G. W. Hastings, 3, Waterloo-place, Pall Mall. We are glad to find the subject of Sanitary Science occupying so prominent a place in the proposed Association, and we hope that the discussion of sanitary subjects will open the eyes of our legislators and others to the importance of the topic.

The returns of the Registrar-General announce the gratifying fact, that the mortality of the present season is much below the average of former years. In the ten years from 1847 to 1856 the average number of deaths in the weeks corresponding with last week was 1464, whereas the registered deaths in London last week amounted only to 1084, although the population has been rapidly increasing. The deaths from diarrhœa continue to decline, though by slow degrees; but it is notorious that, although the mortality from this disease is small, the number of cases is exceedingly large, and some of them are very severe. We understand that this malady is very prevalent upon the sea-coast, and particularly in those towns to which the denizens of our crowded metropolis resort in great multitudes for change of air and scene; and the visitors have, in many cases, been so violently attacked as to derive more harm than good from shifting their quarters. By some persons this epidemic is attributed to the drinking water employed; but it is more probably due to some condition of the atmosphere which at this season of the year appears to predispose the human body to attacks of diarrhœa. The old theory, which attributed looseness of the bowels, and even cholera, to the consumption of fruit, is a popular fallacy which has long been exploded; and, indeed, the use of ripe fruit is perfectly unobjectionable; and, as it is good and abundant at the present time, it may be consumed by healthy persons without any fear of the consequences.

The *Carlisle Patriot* contains the following account of a serious and novel accident to the learned and esteemed Chandos Professor of Medicine at St. Andrew's, Dr. Day:—"Among the numerous visitors to the Lake district during the last few weeks has been Dr. Day, the Professor of Medicine in the University of St. Andrew's, accompanied by a friend. On Friday last he, alone, made an ascent of Helvellyn from Patterdale, and having made several previous ascents of the mountain from the same place, he went unaccompanied by a guide. He determined to descend in the neighbourhood of the Greenside Lead Mines, and took what appeared to be the best and smoothest route, when suddenly the earth behind him gave way, and in an instant he was precipitated into a cavern beneath. The suffocative feelings produced by the state of the air into which he had fallen at once convinced him that he was in the tunnel made to convey away the sulphurous gases from the smelting works of the mines, and he felt that a violent effort must be made to gain the opening, through which he had fallen, or that a speedy death was inevitable. Happily he was just able to reach the opening, and to keep his head in the fresh air above it; and in this position he remained for some hours, partially hanging by one arm, as he found the other was powerless, and calling at intervals for help. As the evening approached, three gentlemen tourists were descending the mountain, and, hearing the cries for help, were attracted to the spot, where they found the Professor's head alone in view. As promptly as possible they removed him from his fearful position, and conveyed him to the inn at Patterdale, where it was found that one of his arms was very badly broken. A messenger was at once despatched to Bowness for Medical aid, and Dr. Clowse arrived in the course of the night, and rendered all needful assistance. On the following day he removed to Carlisle for further surgical aid, where he remained at the Bush Hotel until Tuesday, suffering greatly from the injuries he had received, but congratulating himself on his almost miraculous escape from instant death. We believe steps have already been taken to prevent a repetition of such a disaster." Our readers, especially those who are personally acquainted with Dr. Day, will, we are sure, join us in expressing equally our sorrow for this untoward event and our gratification in being able to state that the Profession has not lost one of her ablest representatives in these Islands.

We would beg to draw particular attention to the admirable letter of our Dublin Correspondent, describing the excursion of the British Association to the Western Islands of Aran, and other matters connected with the late numerous and important scientific congress in Ireland. Although many of the scenes and the subjects described have no direct relation to Medicine, yet we gladly give them insertion, as we conceive that they must be interesting to the members of our Profession as well as to all other cultivators of science and art. It is impossible to record the proceedings of the late meeting of the British Association without offering a warm tribute of praise and of gratitude for the kindness and hospitality which the members experienced from all quarters, and which must leave upon the minds of all an impression of Irish generosity and warmheartedness, which will never be forgotten. Even

the Great condescended to pay homage to science, and the splendid hospitality of the Lord Lieutenant of Ireland, and of the Earl of Rosse, though quite consistent with the enlightened character of those distinguished noblemen, had an air of novelty which was as gratifying as it was refreshing. We hope that their example will be more often followed in this country, and that it will not hereafter be said that Ireland alone knew how to appreciate science, and how to encourage and countenance its Professors.

It is with deep regret that we announce the death of Sir Charles Mansfield Clarke, which melancholy event took place at Brighton this week, after a severe illness. Though retired for some years from the active duties of the Profession, Sir Charles Clarke continued to take the deepest interest in all that concerned its welfare; and many of the charities by which our unfortunate brethren or their relatives were relieved in the hour of their distress will lose a warm friend and a munificent benefactor. The Society for the Relief of the Widows and Orphans of Medical men, in particular, was the object of Sir Charles Clarke's unceasing regard; and as long as his health allowed, he never failed to preside at its annual celebrations, where his genial good humour, fervid eloquence, and genuine benevolence were of material service to the prosperity of the charity, the present flourishing state of which is in great measure owing to the active exertions of its President. Sir Charles Clarke enjoyed an extensive practice; and although his published works on Medical Science may not be at present considered as quite on a level with the doctrines of the day, they excited great attention at the time they appeared, and must still be regarded as standard productions. An ample income was the reward of Sir Charles Clarke's exertions in practice, and the savings from this and the addition of private resources enabled him to retire, some years since, from practice, and to enjoy a vigorous old age in all the comforts which can gladden the evening of life. His loss will long be deplored both in public and private circles; and we believe that it may be said of him, that while in the course of his life he made a multitude of friends, he never made an enemy. He was a handsome man, of very pleasing manners, well educated, and possessing a natural flow of eloquence; and with these qualifications, it cannot be a matter of surprise that he was a great favourite with both sexes, and with all ranks and conditions of men, both within and without the Profession. He was a man possessing strong attachment to old friends; and those who happened to have been educated with him, or to have been otherwise associated with him in life, found in him a constant and sympathising companion at all times, and, what is more, a refuge in the time of need.

We have just received the Twenty-second Annual Report of the Medical Benevolent Fund, and are well pleased to find that it is in a flourishing condition. Those members of the Profession who are still unaware of the existence and the objects of this Fund, should be apprised that its aim is to afford relief to decayed or unfortunate Medical men, by granting them immediate sums of money, or electing them as annuitants. It is no part of the design of this Fund to expend the capital or the income in building, but to furnish relief to the suffering in their own homes; nevertheless, there is accommodation for five aged persons in some cottages built and founded by Mr. Bailey, at Chippenham, for the benefit of annuitants upon the Fund. We are informed in this Report, that altogether about three hundred persons have been relieved by the Fund during the past year; a most gratifying fact, and one which speaks loudly as to the practical benefits conferred upon our poorer brethren. The Committee, however, regret that the Medical Benevolent Fund has not been more extensively and prominently brought under the notice of the Profession; but they are precluded from frequent advertising by the expenses which such a course would entail, and by their desire that all the available income should be devoted to grants to the poor and necessitous. It is also suggested that the members of the British Medical Association might confer great benefit upon the Relief Fund by making it known at the Branch meetings throughout the country. We should strongly urge upon our readers, and upon the public in general, the strong claims which this Fund has upon their support, and it is our firm conviction that it requires only to be more widely known to achieve a much higher degree of success than it has hitherto enjoyed.

PROGRESS OF MEDICAL SCIENCE.

Selections from Foreign Journals.

ON NERVOUS AFFECTIONS OF THE BLADDER.

By Dr. HELFP.

1. *Hyperæsthesia of the Mucous Membrane.*—The characteristic symptom of this is the frequent desire to pass water, which is usually accompanied by more or less severe pain, spastic contractions, and sense of burning in the neck of the bladder and urethra. The urine, which may be either in less or greater quantities in different cases, is not usually abnormal in its chemical or physical properties. The affection is not peculiar to either sex or any age, but is usually met with about the time of puberty in individuals of great nervous irritability, especially in weak, scrofulous subjects. It is often the cause of enuresis in childhood. The neck of the bladder and prostatic portion of the urethra are the commonest seats of the affection. When it has reached a high degree the impulse to pass urine is almost incessant, and tenesmus together with great pain and burning are present, various general symptoms also supervening. The causes are various, as diseases of the urinary apparatus, abnormal conditions of the urine, the use of diuretics, a diseased condition of the sexual organs, disturbances of digestion, injuries of the brain or spine, and chills. Among the affections of the urinary organs, stricture of the urethra, by its frequency, occupies the first place; and in women excrescences of the orifice may give rise to the same symptoms. Persons suffering from stone, disease of the bladder or kidneys, or enlargement of the prostate, are seldom exempt from this irritability, which may go on to a dreadful extent. Severe irritation may be propagated from the urethra to the bladder in gonorrhœa, and it is not uncommon to find a congested state of the neck of the bladder, prostate, and vesiculæ giving rise to it in robust individuals between 20 and 40 years of age, when it is exhibited by a sense of fulness in the perinæum, constant desire to pass urine, and burning along the urethra. In older, gouty persons the irritability is met with connected with an altered condition of the urine. Perversions of the sexual functions are not infrequent causes. In lads a similar condition is sometimes dependent upon a long and narrow prepuce, and disappears after circumcision. Affections of the nervous system, and especially of its central portions, are often accompanied by irritability of the bladder, and much hyperæsthesia is met with in a high degree in hyperæmia of the brain or nervous exhaustion, coming on as a consequence of excessive cerebral exertion, or the improper use of stimuli, especially in old persons who lead a sedentary life, and are of an irritable temperament. Sometimes the hyperæsthesia is induced by the urine being too frequently passed. The urine is the appropriate stimulus for the bladder, and when the latter becomes too frequently emptied, it ceases after a time to be able to hold a larger quantity. It becomes smaller, the muscular fibres are thicker, and the mucous membrane is so sensitive that it will not bear the slightest tension. Literary men often suffer in this way, especially when the digestion is not good, or there is a disposition to gout. It is very common to meet with it in young girls soon after puberty—a kind of irritation that may be here

mentioned, and which is dependent on various causes. Generally there are co-existing symptoms of spinal neuralgia, dysmenorrhœa, or spare menstruation. The extremities are cold, the bowels confined, the tongue loaded, and the digestion difficult. Moreover, these girls are very sensitive, suffering from palpitation from the slightest exertion. The affection often lasts for years. Chills which check transpiration may also give rise to this hyperæsthesia, as may tumours of the pelvis, whether proceeding from the uterus or ovary, and that either by acting mechanically or sympathetically. Even tumours of the external genitals in women may sometimes induce this irritation, which disappears on their removal.

An affection, depending upon so great a variety of causes, requires varying treatment; but when the irritability reaches a very high degree, the patient is very sensitive, and the rest is broken. Palliatives are required: camphor, given as an emulsion, and applied in the form of camphorated oil to the pubic region, is very effective; tepid baths afford great relief, and in all cases linseed tea should be drunk. In older persons, phosphoric acid, given in some mucilaginous vehicle, is of great service; as are also the *syrupus balsamicus*, or balsam of copaiba, when there is much vesical catarrh present.

2. *Neuralgia of the Bladder* is an affection of the most painful character, which occurs in paroxysms that may recur at regular or irregular intervals. The suffering may be insignificant in amount during the first three or four days, but the attacks gradually increase in severity, frequency, and periodicity, and occur especially towards morning and evening. Their duration may vary from two to six hours, during which the patient's sufferings are fearful; and when the attack comes on more than once in the twenty-four hours, the patient has hardly an instant of repose. The seat of the pain, which completely resembles that caused by stone, is the neck or under part of the bladder. It radiates towards other parts, as the rectum, uterus, thighs, etc., and is accompanied by severe burning in the urethra, and frequent but difficult passage of urine. The paroxysm gradually diminishes in intensity; and in the interval the urine is easily discharged, the patient feeling comparatively well. When the affection has long continued, a thin puriform mass is discharged with the urine. Another occasional symptom is a sense of cold in the perinæum and hypogastrium, which frequently extends along the inside of the thighs, and is constantly connected with more or less numbness of the lower extremities. The causes are very obscure. Diseased conditions of neighbouring organs are often present, but it is difficult to say whether this affection be dependent on them. In the majority of cases, however, the patient suffers from nervous affections. Sexual excesses or perversions, stricture, stone, affections of the uterus, or hæmorrhoids may induce it; and it is sometimes met with in patients who long since suffered from intermittent fever. Although attended with fearful suffering, it seldom itself proves fatal, but through loss of sleep and disturbance of digestion it may give rise to great prostration.

In the treatment it is often impossible to seize the causal indication. Purgatives are often useful, especially when there is habitual constipation or anomalous menstruation; and Dr. Helfp has in several cases found large doses of quinine of great service, when there has been great debility and prostration of the digestive powers. In those inclined to gouty and calculeus affections, the Vichy and other mineral waters containing soda may be administered. Counter-irritants do little good, as compared with their inconvenience. Large doses of narcotics are required to relieve the patient's sufferings; and tepid baths with oily frictions are of great use to this end. The diet should be carefully attended to; all alcoholic drinks, acid fruits, and flatulent foods, being avoided; a nutritious diet of animal food best suiting these patients. Flannel must be worn next the skin, and cold feet guarded against. Tepid baths should be frequently employed.

3. *Hyperæsthesia of the Urethral Mucous Membrane.*—This affection, to the great perplexity of both patient and practitioner, is of frequent occurrence, and often complicates a similar condition of the bladder. The causes are manifold, but not always detectible. It may be the result of a gonorrhœa, stricture, affection of the bladder or prostate, uterus or rectum; and is not infrequently produced by sexual excess or depravity. The pain may vary in intensity, from a slight increase of the normal sensibility, to the most excessive suffering, resembling that caused by stone, and giving rise to marked disturbance of the general health. Sometimes hæmorrhage is also present. The locality of the suffering may change from day to day, this being sometimes most severe about the neck of the bladder, at other times in the pubic region, then in the testes and cord, and so on. In most persons there is also a sense of giddiness, palpitation, or other nervous feeling. The amount and extent of abnormal sensibility is best judged of by introducing a medium-sized bougie in the gentlest manner. This often at first gives rise to fainting, especially in young persons; but the frequent repetition of the introduction diminishes, and at last removes the hyperæsthesia.

A rational treatment, from want of exact knowledge of the cause, cannot always be put into force. Antiphlogistics will be found useful when there is a considerable secretion of puriform mucous, stricture, or chronic prostatic inflammation. Afterwards bicarbonate of soda may be given either alone or with dec. uvæ ursi, still continuing laxatives, and employing anodyne injections, combined with a small quantity of acetate of lead, sulph. zinc, or nitr. arg. The patient should take active exercise, and observe a careful diet. The introduction of a full-sized instrument, at first daily, and then on alternate days, is very useful, the compression of the walls of the urethra diminishing their sensibility. Upon this, too, ointments may be introduced. Sexual intercourse must be entirely forbidden.

4. *Neuralgia of the Urethra.*—Hyperæsthesia of the urethra not unfrequently passes on to neuralgia, and especially in young persons of a nervous, irritable temperament, soon after puberty. Frequently no sufficient cause can, however, be assigned for the occurrence of the neuralgia; but for the most part it is a result of onanism or too frequent copulation. In woman it is often a symptom in hysteria and dysmenorrhæa. In some cases it comes on suddenly with intensity, but in others it reaches its maximum only slowly. The pains are acute, and lancinating, and paroxysmal, and may become quite periodic; and with them are conjoined an abiding desire to pass urine, and a burning sensation in the urethra. It is a most tormenting and obstinate affection, sometimes lasting for years, and then disappearing without apparent cause.

When the neuralgia assumes an intermittent form, quinine or arsenic is evidently indicated, while in other cases purgatives may be useful, as may the various forms of medicine usually employed in neuralgia. During the attack the penis should be well fomented with warm water; or what are better, a tepid bath should be taken, and an anodyne clyster administered. Belladonna or veratrine frictions are often of use. In cold weather the penis should be wrapped in flannel, and protected from pressure of the clothing.

5. *Paralysis of the Nerves supplying the muscular coats of the bladder.*—The nerves of the muscular substance of the body of the bladder, as well as those of its sphincter, may, together or separately, become paralysed. If the paralysis only involves the expulsating muscles, ischuria is the result, while when the sphincter is affected enuresis follows. In most cases the entire muscular apparatus is involved. Retention of urine, with enlargement of the bladder, and unaccompanied by sensation, is the characteristic sign of the affection; and the dribbling of the urine, which results after several days' persistence of the state, may lead to errors in diagnosis. This condition of the bladder may be the result,—1. Of mechanical violence done to the abdominal region by blows, or the pressure of the child's head in tedious delivery. 2. It may be the sequence of severe cystitis. In these cases there is great pain and constant desire to pass urine. 3. Excessive distension of the muscular fibres may give rise to it; and this variety is chiefly, though not exclusively, met with in the aged. It originates in the neglect of urgent calls to evacuate the bladder. 4. The paralysis resulting from injury or disease of the spine, is almost always accompanied by paraplegia. 5. In apoplectic and other soporose conditions, as in typhus, etc., this atony of the muscular system not unfrequently endangers life. To this head also belongs the form of paralysis of the bladder met with after certain surgical affections, as compound fracture of the lower extremities, hernia, etc. Every Surgeon knows that after considerable operations the bladder may lose its contractile power. 6. Licentious excesses not unfrequently lead to this paralysis, when the persons are unable to empty the bladder at suitable times.

Aged persons are particularly liable to this, especially when of a gouty diathesis.

In all these cases our object should be to empty the bladder by the catheter, and restore the tone to the organ. For the latter purpose we must endeavour to excite the contractility of the bladder by operating by reflex stimulus through neighbouring organs, or by acting directly upon itself. To the former means belong drastics, stimulating clysters, or suppositories; and to the latter, cantharides employed internally or externally, and strychnia. In old cases, and where there is general laxity of the muscular system, the cold douche, applied alternately to the spinal and abdominal regions, is useful; and Faradisation, which is so useful in other forms of paralysis, should also be tried here. The employment of electricity, in conjunction with the prolonged use of mineral waters, especially the Alpine, has, in the author's opinion, obtained too little attention in the treatment of peripheric paralysis.

6. *Spasmodic affection of the Muscular Apparatus.*—Spasm in place of paralysis may attack the detrusor urinæ, and give rise to constant desire of expulsion; or it may affect the sphincter and produce ischuria. Commonly both conditions are present together. The ordinary cause of the spasm is the reflex action of the sensitive nerves of the bladder or urethra; and it is hence always found in hyperæsthesia or neuralgia of these parts. Its treatment evidently is dependent upon relieving their excited sensibility.—*Deutsche Klinik*, Band viii. Nos. 44 and 45.

PROVINCIAL CORRESPONDENCE.

IRELAND.

Kilronan, Inishmore, September 4, 1857.

Having left Dublin yesterday morning with the "Ethnological Excursionists" of the British Association, I am obliged to suspend for the present my reports of such papers read at the late highly successful meeting of the Association as I think may be interesting to the readers of your Journal. We started yesterday morning at a few minutes before seven o'clock, from the Broadstone terminus, in a special train liberally provided free of expense by the directors of the Midland Great Western Railway Company, and reached Galway after a pleasant run across Ireland, in rather less than four hours. Our expedition is under the able direction of W. R. Wilde, Esq.; our destination is the Western Islands of Aran, at which we arrived at four o'clock yesterday afternoon, in the "Vestal" steamer, "placed at the disposal of the director of the excursion by the Board of Trade, on the application of Chief Baron Pigot to Lord Stanley of Alderley, the Dublin Ballast Board having kindly postponed their tour of inspection to the Irish lighthouses, which had been arranged for the 5th instant." The Western Islands of Aran are situated about thirty miles from Galway harbour, and contain, according to the admirable description drawn up by Mr. Wilde, for the information of the excursionists, "the greatest number of Pagan and early Christian monuments, military, domestic, ecclesiastical, and sepulchral which can be found within the same area in Europe." Among the party are the Rev. the Provost and several of the Fellows of Trinity College, Professor Simpson of Edinburgh, and many members of the Medical Profession in Dublin. We have also the advantage of the company of the distinguished antiquarians and Irish scholars, Dr. Petrie, Samuel Ferguson, Esq., Dr. O'Donovan, and Mr. Eugene Curry. Owing to a fortunate delay of an hour and a half in the sailing of the steamer, several of the party were enabled to visit the Queen's College, Galway, and were much struck with the order and regularity which pervaded every department of the Institution, and the completeness of the appliances for instruction in the several branches of learning. The library is excellent and admirably kept, the museum of natural history is extensive, and in the most perfect order; the philosophical apparatus is complete; but I felt more immediately interested in examining, though necessarily very cursorily, the excellent means the College possesses, through [the ability and indefatigable industry of the Professor of Anatomy and Physiology, Dr. Charles Croker King of conveying instruction in these departments of Medical science. The anatomical museum contains a very large collection of the most beautiful preparations, exhibiting the structure of the mucous membrane in various parts of the body, of the lungs in man and different animals, of the eye, the ear, etc., the anatomy of all the ligaments of the body, etc. The osteological collection is very extensive. Dr. King has also put up a series of very beautiful microscopic preparations illustrative of the growth of bone and of the teeth, and of general structure both human and comparative, and also a series showing the various urinary deposits. In addition, the College now possesses the pathological collection of the late Dr. Mackintosh of Edinburgh, and the very valuable museum of ex-Professor Montgomery of Dublin. Clinical instruction is regularly given in the Hospitals of the town, so that the "City of the Tribes" now contains a school of Medicine complete in every branch.

On the second day of the excursion a most interesting meeting of the members of the British Association at present in the island, which, it is to be hoped, will be attended with important results, was held in the very ancient ruined fort known by the name of Dun Aengus, the Provost of Trinity College in the chair, or rather on a ledge of rock, the outer extremity of which caps a perpendicular precipice about 250 feet high, the base of the latter being washed by the waves of the wide Atlantic. That the Ethnological Section should meet in such a locality was as novel as it was appropriate. The ruins of a structure raised for the purposes of rude warfare by a people differing as widely as possible from those who now met within its walls, were converted for the nonce into a hall of science, the roof being the blue vault of heaven, while from the platform of rock on which the speakers stood the eye reached as far as the rotundity of the earth permitted, across the mighty ocean, which lay, at the time, as calm and unruffled as a lake. The scene was most imposing, and seemed, with the aid of a conviction of the real importance of the occasion, to inspire the speakers with more than ordinary eloquence. Mr. Wilde explained at some length the object for which he had carried the Association to the locality in which they then were, that of developing the resources of one of the most interesting districts in North-western Europe, and the means by which he was enabled to effect his object, and he referred to the number of persons of distinction by whom he was surrounded, as a proof that his labour had not been in vain, and as an indication of final success in the great object which he had in view.

Professor Babington, of Cambridge, proposed, and Dr. Norton Shaw, Secretary to the Geographical Society of London, seconded a vote of thanks to Mr. Wilde, for the indefatigable exertions whereby alone he had at length succeeded in carrying out an excursion which had brought under the notice of the ethnological section of the Association so many valuable and important archæological remains. The Rev. Dr. Graves urged upon the meeting the necessity of giving permanence, by some such means as the publication of drawings in the possession of Mr. Wilde, to the investigations in which the section had been for the last two days engaged under his auspices; a motion which was warmly seconded by the Rev. Professor Jellett, of Trinity College, and unanimously adopted by the meeting. Dr. Stokes suggested that the influence of the British Association should be employed in endeavouring to induce the Government to undertake the care of the valuable remains in the island, which were rapidly dwindling away. The French Consul at Dublin returned thanks for the pleasure he had derived from his visit to Aran, and expressed his satisfaction that the alliance between France and England was not merely one of war against a common foe, but that it was an alliance of commerce and of science. The meeting was also addressed by Professor Simpson of Edinburgh, the Provost, Mr. O'Hagan, etc.; after which Mr. Curry and Dr. O'Donovan spoke in Irish to the assembled natives on the necessity of, for their own sakes, preserving the interesting memorials of past ages contained within their island. To this one of the islanders responded in Irish at considerable length, enforcing upon his hearers by additional arguments the exhortations of the last speakers.

On the third day the excursionists visited Dun Conchobhair, in the Middle Island; and, after steaming under the stupendous cliffs of Moher, in the county of Clare, returned to Dublin by special train, leaving Galway at half-past six p.m.

The weather, which in the west was as fine as the excur-

sionist could desire, was less propitious in Dublin. The almost uninterrupted sunshine which had prevailed during the meeting of the Association gave place on Thursday morning to a storm of wind and rain, sufficiently great to prevent the Geological expedition to Lambay Island, under the guidance of Professor Jukes, from proceeding further than the promontory of Howth. The pleasure trip to the County Wicklow was in like manner damped by a wet morning, though a fine afternoon subsequently in a great measure compensated for the unpleasantness of the early part of the day. The excursion to Parsonstown, about sixty miles from Dublin, extending over two days, was more successful. Here 150 members of the Association were entertained with princely hospitality by the Earl of Rosse, whose monster telescope, and the discoveries connected therewith, have made his name well known wherever astronomical science is cultivated. It is but fair to add, that his lordship was most efficiently seconded in hospitality by the townspeople, who received with welcome at night those who could not be accommodated in the castle. In the evening, ex-Professor Stoney, Secretary to the Queen's University, gave in the drawing-rooms a lucid description of the telescopes, and of the ingenious methods adopted by Lord Rosse, in overcoming the difficulties connected with the construction of his monster instrument. At five in the morning, the party of observers engaged all night in observations with the latter, which made the planet Jupiter appear as large as the full moon does to the naked eye, was reduced to nine. Next day the workshops and foundry, the telescopes, the observatory, and the waterwheel for draining the land, capable of throwing off six tons of water when in full operation, were visited; the several processes of casting, grinding, and polishing the immense telescopic specula being explained by his Lordship. The party were conveyed to and from a point within six miles of Parsonstown, (the rails on the branch line being not yet laid in the intermediate space,) in a special train, liberally provided, free of charge, by the Great Southern and Western Railway Company.

As I have been led to speak of excursions, I may mention that the promenades at the Zoological and the Glasnevin Botanic Gardens, the *conversaziones* at the Royal Dublin Society and the Royal Irish Academy, and the reception at Dublin Castle, all passed off most brilliantly. On the occasion of meeting at the Academy, the rooms of the adjoining mayoralty house, including the large round or "king's" room, were thrown open by the Lord Mayor, (an old member of the Association,) and were connected with the Academy by means of awnings crossing the Mansion House-gardens. The reception at the Castle, to which all the members were invited by the Lord-Lieutenant, at the conclusion of Dr. Livingstone's lecture in the new museum of the Dublin Society, was probably the first occasion on which a large scientific body was collectively entertained in these kingdoms by Royalty or its representative; and the invitation was an act of homage to science worthy of so accomplished and enlightened a nobleman as Lord Carlisle.

Dublin, September 7, 1857.

Among the papers read before the Chemical Section during the late meeting of the Association, was one by Dr. Odling of Guy's Hospital, "On the Effects of Alum on Panification." The author adverted to the very prevalent use of alum by London bakers, and considered that such a practice would not exist unless there resulted some definite effect upon the panative process. Dr. Odling's explanation of the effect of alum was as follows:—When flour is washed with water, its gluten remains as a tough, elastic mass, and an opaque fluid is produced, from which the starch subsides as a white, insoluble powder, while the supernatant clear liquid has a sweet taste, and contains some modification of sugar. When the washed starch is acted upon by yeast, it undergoes scarcely any change, but the saccharine liquid rapidly ferments into carbonic acid and alcohol. This transformation of the saccharine element of flour is an essential stage in the manufacture of fermented bread. But during the process of bread-making another species of fermentation or change most frequently, though not invariably, takes place. This change results from some peculiar condition of the nitrogenous principle, and consists in a transformation of the starch of the flour into sugar, under the combined influence of heat and moisture. It corresponds exactly with the change of character which barley undergoes during its conversion into malt. From a considerable number of experiments Dr. Odling has shown, that while alum exerts scarcely any effect upon the necessary fermentation of sugar into carbonic acid and alcohol, it impedes very greatly, or prevents altogether, the objectionable transformation of starch into sugar. High-priced flour, rich in starch, and poor in gluten, obtained from the central portions of grain that has been well harvested, has scarcely any tendency to experience a conversion of its starch into sugar; and when such flour is used for bread-making, no appreciable effect is produced by the use of alum. But in the case of low-priced flour, obtained from the exterior portions of the grain, more particularly if, from damp harvesting, it has undergone sprouting, or from careless storage has been allowed to get wet or heated, the change of the starch into sugar during the process of panification takes place to a greater or less extent,—in some cases to such an extent as to prevent altogether the formation of an eatable loaf, unless alum, or some such agent, be added to prevent the change. In several samples of apparently good, and certainly pure flour, the loaves made without alum have been dark-coloured, wet, sticky, sweet, and uneatable; while those made with alum have been white, dry, crumbly, and unobjectionable both as to taste and appearance. If from the very best flour two loaves be made with an infusion of malt instead of water, and if alum be added to one only, the same differences in the characters of the bread will be perceived. From the greater part of the 1856 flour it was difficult to to make presentable loaves save by the use of alum. That alum frequently exerts a most decided improvement upon the character of the resultant bread is indubitable. How far its habitual use in small quantity may be prejudicial to the health of the consumer is a point upon which there exists no reliable evidence.

Dr. Lyon Playfair, C.B., observed, that heretofore no rational explanation of the effect of alum had been afforded; but that, while fully agreeing with the ingenious views of Dr. Odling, he considered that alum in bread must be regarded as an adulteration, seeing that its effect was to palm off loaves made with inferior flour.

Dr. Barnes and Dr. Odling brought before the section a paper, "On the condition of Thames water as affected by London sewage." The authors had, for a period of nearly six months, made consecutive weekly examinations, microscopical and chemical, of Thames water at Greenwich, taken at high and at low tide. From their experiments, it appeared that the sewage poured into the river was for the most part destroyed by the innoxious process of oxidation and vital development, and that a very minute proportion underwent the process of putrefaction properly so called. The amount of organic matter existing in the water did not appear to be any criterion of its offensiveness, inasmuch as the greater portion of this organic matter was in the state of living organisms. The authors found a greater amount of organic matter in high than in low water.

At the closing meeting of the Association, held on Wednesday, the 2nd of September, Professor Phillips stated that the meeting had been attended by 2002 members. The number at Cheltenham last year was 1107, and at Glasgow the year previously 2132. Hence the Dublin meeting, like the one previously held in the same place, belonged to the class of the greater meetings of the Association. The Association will meet next year in Leeds.

GENERAL CORRESPONDENCE.

THE THYMUS GLAND.

[To the Editor of the Medical Times and Gazette.]

Sir,—The following notes of a case of sudden death in a child appear to possess some little interest when taken in connexion with the cases adduced by Mr. Pretty in his paper on the "Thymus Gland," etc., in your number of last week; and I forward them in the idea that they may possibly seem to you worth publication:—

April 14, 1857.—A. H., a male child, aged 9 months, while lying in the nurse's lap was seized with a convulsion, and was dead in a few seconds. No history of prior illness of any kind; it had been cross and peevish for a few days; no injury had been sustained.

April 15th.—I made a post-mortem examination twenty hours after death. Body plump, and well nourished; no bruise nor discoloration upon it; rigor mortis marked.

The larynx was first examined. No foreign body either in the rima glottidis or in the tube. On opening the chest, the thymus gland was seen to be very large, pale, and flabby; the weight I am unfortunately not able to give, but the gland occupied the whole of the anterior mediastinum superiorly, and attracted attention from its bulk. Lungs healthy; bronchi slit up to minute divisions, but no foreign body detected; heart healthy; foramen ovale closed; abdominal organs healthy; a little coagulated milk taken from the breast ten or fifteen minutes before death found in the stomach; no trace of irritation about the lining membrane.

The veins of the scalp full of blood—ossification of the bones not advanced very far—dura mater congested; and on dividing this the arachnoid presented on the convex and superior surface of each hemisphere a patch of recent lymph irregularly shaded off, probably about the size of a crown piece—membranes at base of brain congested—substance of brain congested—numerous bloody points on section—no softening.

My only apology for bringing this case forward is the fact that it combines two interesting pathological conditions:—

1. Serious cerebral lesion, unmarked by external signs.
2. Large thymus gland, but without any symptoms referable to its size.

The arachnitis was most probably consequent on dentition, yet it gave to the attendants no sign of its presence; the same cause would probably give rise to irritation of the brain (fatal) without the necessity of supposing the thymus gland in any way concerned in such a result.

Mr. Pretty does not give any positive deductions in his paper. More cases are necessary even to form an opinion, and I am happy to be able to add one more to the list he gives.

I am, &c.

W. Newman, M.R.C.S., &c.
Late House-Surgeon to the Salop Infirmary.

Fulbeck, Grantham, Aug. 18, 1857.

ADMINISTRATION OF CHLOROFORM.

[To the Editor of the Medical Times and Gazette.]

Sir,—Mr. Aspray seems surprised at my saying that chloroform can save life. Perhaps for his benefit you will allow the few following lines to appear:—

1. I have seen (and others have seen too) the dangerous operation for strangulated hernia rendered unnecessary by the administration of chloroform.
2. I have known (and others likewise) puerperal convulsions cured by chloroform, when all other remedies have failed; and thus have lives been saved.

The strong argument at the conclusion of his letter, against the use of chloroform, viz., that twenty years ago he "opened" the bladder, and "amputated" the breast in two instances successfully, without its use, is unanswerable.

I am, &c. James H. Aveling, M.D.,
Sheffield, September 7, 1857. M.R.C.S. Eng.

ARREST OF DEVELOPMENT IN UTERO.

[To the Editor of the Medical Times and Gazette.]

Sir,—Mr. Robert Oke Clark, of Farnham, publishes in your last number accounts of two cases of arrest of development. The first case is curious enough. Mr. Clark would find in M. Geoffrey St. Hilaire's large work, "Anomalies de l'Organization," as much explanation as such a case admits of, under the heads: "Anomalies par diminution numérique;—Absence de quelques vertèbres, côtes, doigts, dents," &c., tome i. livre v.; and "Anomalies par cloisonnement," tome i. part ii. livre iv. chap. 3. It is singular that, as St. Hilaire shows, all these anomalies follow certain laws. The question asked by Mr. Clark about his second case is easily answered. It is a case in which a child was born with a stiff knee-joint and stiffened hands and feet, coincident with a large spina bifida and hydrocephalus; and he asks whether the stiff knee was caused by a mental impression on the part of the mother, the father having a stiff knee resembling it? Not at all. In the first place hydrocephalus and spina bifida are often found together, sometimes both congenital; at other times, but more rarely, the hydrocephalus coming on subsequently to birth in a child born with spina bifida. Nothing is so common as to find club-foot and other distortions of the lower limbs depending on muscular contraction in children born with spina bifida, the muscular contraction being the obvious effect of spinal irritation; and, indeed, as we may have seen in cases of spina bifida, hydrocephalus supervening subsequent to birth, so I have seen club-foot come on subsequently to birth, the effect of the spinal irritation in spina bifida. The deformity in Mr. Clark's case was caused by the spina bifida and hydrocephalus, not by the mother's mental impression. That the deformity resembled the father's was the merest coincidence.

I am, &c. R. U. West, M.D.

Alford, Lincolnshire, Sept. 7, 1857.

REPORTS OF SOCIETIES.

WESTERN MEDICAL AND SURGICAL SOCIETY.

At a recent meeting of this Society, Dr. Fincham read a case in which

SYMPTOMS OF ULCERATION OF THE LARGE INTESTINE

WERE FOLLOWED BY SWELLING OF BOTH INFERIOR EXTREMITIES, AND PERMANENT OBSTRUCTION APPARENTLY OF BOTH COMMON ILIAC VEINS.

The patient, aged 15, came under Mr. Fincham's care May 14, 1856. He was very anæmic, with a soft weak pulse 120, but his appetite was good, and his skin of natural warmth: the urine was natural. He complained of diarrhœa, the motions being relaxed and bloody, with much pain at the extremity of the gut, on going to stool, and during defæcation; some pain also existed in the hypogastric and left inguinal regions, though the abdomen generally was soft and yielding. The rectum was examined by finger and by speculum, without detecting anything; the motions were, however, very slimy, offensive, and bloody. The symptoms yielded to treatment, and upon their return he was re-admitted into Westminster Hospital. The frequency and the nature of the evacuations were now improved, but blood was still passed. On July 4, without any rigor, he complained of pain about the right knee, the soft parts about being swollen and œdematous. On the 5th, the swelling, though less, had extended up the thigh. On the 7th, there was pain, increased by pressure, over the iliac and inguinal regions, the pain extending a short distance down the inner aspect of the thigh; there was fulness, though no hardness in these parts. On the 10th, there was œdema of the right foot. On the 16th, the pain diminished, and the general swelling was reduced, but on the next day both symptoms were aggravated; the right thigh and the inguinal region had become very painful and swollen, and the superficial veins distended; though the pain was very severe, there was no fever or constitutional symptom. On the 18th, the superficial veins over the whole abdomen, as well as those on both of the lower extremities, became considerably distended. On the 23rd, the parts affected remained œdematous with the scrotum until the middle of August, when it disappeared, the superficial veins, however, never diminishing to any notable degree. He was discharged towards the end of September, when his condition was as follows:—There was great enlargement of both internal saphina veins, the abdomen and the flanks were covered with a network of vessels manifestly consisting of enlarged and tortuous branches of the epigastric and circumflex and iliac veins, through which, as was evident on pressing them, the blood flowed in an upward current. This network of veins inosculated with the mammary vein, enlarged branches of which were visible on the chest; by this channel, and through the intercostals (probably), the blood was returned to the heart. This state of things existed on December 30, when he was last seen. In commenting upon the pathology of the case the author adopted Dr. Lee's views, and considered the phenomena above narrated to be due to absorption of pus or some other morbid fluid from the mucous surface of the lower portion of the large intestine, in which ulceration had doubtless existed. He considered that by means of the hæmorrhoidal veins it was quite possible for

morbid matter to find its way into the large venous trunks, and he fortified his view by referring to cases on record in which painful swelling of the lower limbs, with symptoms of venous obstruction was found co-existent with ulceration of the mucous membrane of the colon and rectum. He referred to Medico-Chirurgical Transactions (16th vol.), in which were narrated two cases of phthisis, in which ulceration of the large intestine had apparently caused symptoms similar to phlegmasia dolens; he mentioned also other similar cases, though they were not verified by post-mortem revelations. He therefore considered absorption of morbid matters from the colon or rectum to be the primary cause of the symptoms of venous obstruction in the case narrated, and that the tendency to coagulation was increased by the anæmic condition of the patient, and consequent increased proportion of fibrine as compared with the red globules, and by the sluggish manner in which the blood would be propelled through the vessels by the weakened heart.

Mr. Lane then communicated a case of

EXTENSIVE DISEASE OF THE BONES OF THE SKULL, IN WHICH DEATH ENSUED FROM EXPOSURE OF THE BRAIN.

The patient, a female, contracted syphilis from her husband, and subsequently suffered from ulcers on the legs, eruption on the skin, ulcerating nodes on the forehead, and destructive ulceration of the septum nasi. She was admitted into the Lock Hospital during July, 1856. She was then much disfigured by extensive ulceration on her face, and consequent exposure of bone, and by ulceration of the eyelids and lips; the external parts of the nose had disappeared, and the right eye was opaque, the left being destroyed by sloughing of the cornea a few days before admission. A large portion of the os frontis was dead and exposed, as were also the alveolar processes of the superior maxillary bones opposite the incisor teeth, as well as also the ossa nasi. The interior of the nostril was also involved in the disease, the hard palate being slightly affected, and the soft palate not at all. Other nodes, etc., existed in other parts of the body. She was treated generously, took quinine, nitric acid, sarsaparilla, and iodide of potassium. All her bad symptoms improved under this treatment; the ulcerations of the cheeks and lips cicatrised, and the dead bone loosened by degrees, but did not separate until December. On the 25th of that month the whole of the dead bone fell in one piece from its position, it consisting of a large portion of the entire thickness of the os frontis, the entire ossa nasi, and the ascending nasal plate and alveolar process of the left superior maxillary bone. The dura mater, thus exposed, was healthy, except a small portion outside the frontal eminence, which was of a dirty white colour, and evidently bereft of its vitality; this slough soon separated, and the subjacent portion of brain protruded. This hernia cerebri in a short time measured two or three inches, and was about the thickness of two fingers, and reached nearly as low as the angle of the mouth before it was excised. Other protrusions succeeded, consisting of dirty white pulpy substance. Though cicatrisation proceeded for some time, and no brain symptoms occurred, yet on the 8th of February, 1857, paralysis of the right arm and leg occurred. The brain then ceased to protrude, she became comatose, and on the 17th she died. After death the dura mater forming the margin of the opening, through which the hernia-cerebri took place, had formed adhesions with the arachnoid, so as to close the cavity of that membrane. The convolutions and their membranes were healthy, but on slicing down the left hemisphere to the level of the left lateral ventricle, it was found excavated in its anterior lobe, from the external wound backwards into the left ventricle. This excavation was funnel-shaped, the base being at the external wound, and the apex opening into the ventricle. The whole of this track had a sloughy boundary, of a dark brown colour. The corpus callosum seemed softer and slightly yellower than natural.

Morals of the Viennese.—It appears, from the statistics published by the Common Council Bureau of Vienna, that the number of illegitimate births in that city has almost equalled the number of the legitimate births during the four years from 1853 to 1856. The following are the figures on the subject:—1853. Legitimate births, 11,264; illegitimate births, 10,686. 1854. Legitimate births, 11,252; illegitimate, births, 10,801. 1855. Legitimate births, 10,650; illegitimate, 9,522. 1856. Legitimate, 10,870; illegitimate, 10,311.

OBITUARY.

TEE LATE SIR CHARLES MANSFIELD CLARKE, BART.

Death has recently carried off one of the most distinguished ornaments of the Medical profession in the person of Sir Charles Clarke, who died on Monday, the 7th inst., at his residence on the Marine Parade, Brighton, in his 76th year, after a lingering illness of nearly two years' duration.

Charles Mansfield Clarke, the younger son of the late Mr. John Clarke, surgeon, of Chancery-lane, by a daughter of Mr. William Mansfield, of Thrapstone, Northamptonshire, was born in London, May 28, 1782, and received the rudiments of his classical education at St. Paul's school, where he was the schoolfellow and, we believe, the playmate and formfellow of the late Lord Chancellor Truro and the present Chief Baron Pollock. His father's example led him, at an early age, to turn his attention to Medical studies; and accordingly, instead of passing to one of the Universities, he attended St. George's Hospital, and the lectures on anatomy delivered at the Hunterian School by Mr. Wilson and Mr. Thomas, and those on midwifery by his elder brother, the late Dr. John Clarke, who for many years enjoyed a most extensive practice in that particular branch of the profession in which his younger brother was destined to become so distinguished.

Having finished his preliminary studies, Charles Clarke was admitted a member of the Royal College of Surgeons, and spent the first two years of his professional life as Assistant-surgeon in the Hertfordshire Militia, which he subsequently exchanged for the post of Surgeon in the 3rd Regiment of Foot Guards. Of this part of his early career he always felt proud, and frequently in his later years it was his lot to return thanks on public occasions at once for the Military and the Medical profession. Subsequently, however, he was induced by his elder brother to give up the army, and to devote his whole attention to the diseases of women and children, and more particularly to the practice of midwifery. He associated with his brother as a lecturer on these subjects as early as 1804, and continued to deliver his regular courses of lectures down to the year 1821, during which time he could reckon almost all the eminent accoucheurs among his hearers and pupils. For many years he held the appointment of surgeon to Queen Charlotte's Lying-in Hospital, which he resigned about the same time that he ceased to lecture, though the interests and welfare of that institution continued to the last to be objects of his attention and regard. In 1825 he was chosen a Fellow of the Royal Society.

Hitherto Mr. Clarke had practised only as an accoucheur, in which capacity his rise to fame and celebrity had been speedy, if not sudden, though not more so than he well deserved; for no man ever threw himself more zealously into his professional duties, or showed more tenderness and sympathy in all his dealings with his patients, or more kindness and courtesy to his professional rivals. He always had a kind word for every one around him; and even when in the height of his London practice, and when carriages thronged his doors in Saville-row, he would go on any distant visit to the wife or daughter of a Medical gentleman, regardless of the consequences to himself. By these means, aided by his great sagacity and knowledge of the world and mankind, he attained so solid and substantial a position that he was able to retire from the constant cares of his London practice at an age when most men are still climbing up the hill, and to purchase the estate of Dunham Lodge in Norfolk when he had scarcely passed his 40th year.

Having obtained the degree of M.D. from Lambeth, in 1827 Dr. Clarke became a Licentiate of the Royal College of Physicians; and on the accession of William IV. to the throne he was honoured by the appointment of physician to Queen Adelaide. On September 30, 1831, he was created a Baronet, and in the year 1836 he was elected a Fellow of the Royal College of Physicians. In 1842 he had conferred upon him the honorary degree of M.A. by the University of Cambridge, and was created a D.C.L. of Oxford in 1845.

Incessantly engaged in the performance of the active duties of a most laborious department of his Profession, Sir Charles Clarke had not the leisure for many literary productions, but

it is observed by no less an authority than Dr. Pettigrew that the excellence of that which he published serves only to awaken regret that he should not have written more. His chief work, and that by which his name will be longest remembered among Medical circles, is his "Observations on the Diseases of Women and Children," which he published in two parts, in 1814 and 1821 respectively, and forms an essential part of every Medical library. He was President of the Society for the Relief of the Widows and Orphans of Medical Men, in which he took the deepest interest to the last. He was the personal friend of nearly all the Medical celebrities of the present century, and was beloved by all who knew him, whether in or out of his Profession. Of late years he had resided almost entirely at Brighton.

Sir Charles Clarke married, in 1806, Mary Anna, daughter of the late Wright Thomas Squire, Esq., of Peterborough, who died in 1856, by whom he had a family of five daughters, and also two sons, the elder of whom has now succeeded to the title as second baronet. He is in holy orders, and was appointed to the rectory of Hanwell, Middlesex, in 1847.

MEDICAL NEWS.

Apothecaries' Hall.—Names of gentlemen who passed their examination in the Science and Practice of Medicine, and received Certificates to Practise, on September 3, 1857:—

Bright, John Meaburn, Richmond.
Smith, James Thomas, Sutton Coldfield.

DEATHS.

Bowling.—Murdered in church, by the mutineers of his corps, at Shahjehanpore, Henry Hawkins Bowling, Surgeon of 28th Regt. Bengal Native Infantry.

Brickenden.—On the 4th instant, at Shepton Mallett, Thomas Brickenden, M.D., aged 86.

Clarke.—At Brighton, on the 7th instant, Sir Charles Mansfield Clarke, M.D., aged 75.

Day.—On the 5th instant, at the residence of his brother, J. C. Day, Esq., Surgeon, 42, Robert-street, Hampstead-road, from dissection wound, Alfred, fourth son of Hamilton Smith Day, Esq., 14, Piccadilly, deeply regretted.

Mawe.—In India, of sun-stroke, whilst endeavouring to effect his escape with his family, Thomas Mawe, M.D., of the 12th Bengal Native Infantry.

Proposed Dead Meat and Poultry Market, Smithfield.—The committee of the inhabitants of St. Sepulchre, and others interested in the appropriation of Smithfield as a Dead Meat and Poultry Market, have caused a plan of such a market to be prepared by Mr. H. Isaacs, the surveyor to the Board of Works for the Holborn district, which plan has been submitted to the Chancellor of the Exchequer, who has highly approved of it, and transmitted a copy to the City authorities for their consideration. The plan has been prepared to meet the views of government, and also of the authorities of St. Bartholomew's Hospital, and at the same time to meet the requirement of the trade. It is proposed to keep the whole of the market buildings to the north of Long-lane, the present line of that street determining the line of frontage. The area required, in addition to that portion of the old market available, is to be obtained by the removal of property in Smithfield-bars to Charterhouse-lane on the one side, and Greenhill-rents on the other, and by the purchase of property on the west side, abutting on Durham-yard. The space thus obtained will give an area of 244,300 superficial feet, or upwards of 5½ acres, and this area is to be subdivided into shops of 16 feet square each, approached by covered avenues of the same width. It appears that the actual amount of space available in Newgate-maket is 120,000 superficial feet, so that the new market will afford just double the quantity of accommodation now provided. This increased space is proposed to be divided, one half being devoted to the meat market, while the remaining half will be found sufficient to accommodate the whole of the wholesale poultry salesmen in London. The cost of the erection of the building, the purchase of property required, and compensation to the interests affected, is estimated at £300,000; but it will be unnecessary to incur the whole of this outlay at one time, as the market buildings may be erected at different periods, as the necessity for increased accommodation becomes apparent.

Disease and Deformity in American Schools.—In Miss Beecher's Letters to the People on Health and Happiness, it is stated that the health of the American people is perishing at a fearful ratio; and that while other nations, both in school and at home, train their children to be strong and healthy, we are training ours to be puny, sickly, and deformed. In proof of this, facts are exhibited showing that of the American women born in this century and country, probably not two in ten have the vigour and health of their maternal ancestors, while probably more than one half of them are either invalids or very delicate. The object of this article is to direct public attention to the prospects of the coming generation, as indicated by the health of the children of our city schools. From the recent investigations, there is reason to believe that more than one-half of the children of our public schools who were born in this country, and who are twelve years old and upwards, are either diseased or deformed. Will the public look at this? Bad air from stoves, rooms without ventilation, close sleeping-rooms, crowded school-rooms, improper food, poisonous medicines, want of proper exercise, and over-excitement of the brain by study, have all combined to produce a debility of the whole body, especially of the muscles. Teachers in our city schools say that marks of weakness and deformity are constantly increasing, and that the longer the pupils go to school the more these indications increase; that is to say, they are found more in the upper department than in the primary.—*New York Tribune.*

Marylebone Workhouse again.—At the weekly meeting of the Board of Guardians of St. Marylebone, held at the Workhouse, New-road, Mr. C. Beevor in the chair. Mr. Salmon reported that circumstances had come before the Rota that morning, which were horrible to think of and a disgrace to the board. A young girl, aged 18, named Anne Moring, of good character, had been allowed to lie outside the workhouse for ten days and nights, and when admitted, although her only crime was poverty, she had been placed for three weeks and locked up in the refractory ward with the most debased characters; and it had come to their knowledge that girls of tender years, if they returned from their places, were also sent into that sink of iniquity to be contaminated. He moved that the subject be referred to a committee already existing to investigate and report. Mr. Tavener seconded the motion, as he was sure that inquiry would refute the whole of these statements. The whole of the inmates of the refractory ward were the worst of characters. When any one went in as he did they were all humility and well behaved; but as he turned his back he heard them say they would split his head. Mr. Nodes said, it was a fact, although he had protested and raised his voice against such a wrong, that children of tender years, if they returned from place, were sent to this refractory ward to be utterly ruined. Dr. Bachoffner, contended that an immediate inquiry was demanded, as otherwise it would go forth, that the guardians were tacitly supporting this state of things, should the statements be true. Mr. V. Knight corroborated the statement of Mr. Salmon, and said the narrative of the poor girl, Anne Moring, that morning before the Rota was enough to make any humane heart bleed to hear it. What right had she to be locked up in this den of infamy for three weeks? Not only was it illegal, but he regretted to say that the conduct of Poor-law officers generally to the poor was more like savages than Christians, and a disgrace to our country. The motion was carried with Mr. Webb's addition; and Mr. Webb, Mr. Salmon, Mr. Nodes, and Mr. Knight were added to the committee. Mr. Jallings said, he knew nothing of the girl Moring lying outside the house ten days and nights. Mr. Tavener said, Mr. Salmon and Mr. Knight had made statements they would have to disgorge; and, after some strong observations, the next business was carried.

VITAL STATISTICS OF LONDON.

Week ending Saturday, September 5, 1857.

BIRTHS.

Births of Boys, 790; Girls, 784; Total, 1574.
Average of 10 corresponding weeks, 1847-56, 1483·0.

DEATHS.

	Males.	Females.	Total.
Deaths during the week	537	547	1084
Average of the ten years 1847-56	..	..	1464
Average corrected to increased population	...	..	1610
Corrected average for corresponding week in ten years 1847-56	722·1	742·2	1464·3
Deaths of people above 90	..	1	1
Deaths in 13 General Hospitals	24	20	44

DEATHS IN SUB-DISTRICTS FROM EPIDEMICS.

	Population. 1851.	Measles.	Scarlatina	Hooping-Cough.	Diarrhœa.	Cholera.	Typhus.
West	376,427	1	6	3	31	..	4
North....	490,396	4	2	6	23	..	16
Central ..	393,256	5	2	2	22	...	11
East	485,522	6	11	7	48	2	8
South	616,635	2	6	10	57	2	13
Total..	2,362,236	18	27	28	181	4	52

METEOROLOGY.

From Observations at the Greenwich Observatory.

Mean height of barometer	29·620 in.
Mean temperature	60·4
Highest point of thermometer	86·5
Lowest point of thermometer	46·9
Mean dew-point temperature	54·2
General direction of wind	S.W.
Whole amount of rain in the week	0·84
Amount of horizontal movement of air in the week ...	490 miles.

DEATHS REGISTERED DURING THE WEEK.

Causes of Death.	In the Week ending Saturday, Sep. 5, 1857. Deaths of Persons. AT ALL AGES.	Under 20 Years of Age.	At 20 and under 40 Years of Age.	At 40 and under 60 Years of Age.	At 60 and under 80 Years of Age.	At 80 Years of Age and Upwards.	Averages of Temperature and Deaths in 10 Weeks.
Mean Temperature	Mean temp. 60°4						58°8
All Causes	1084	602	143	158	153	28	1464·3
Specified Causes	1080	599	143	157	153	28	1460·8
Diseases:—							
1. Zymotic Class	344	284	21	18	16	5	758·0
2. Dropsy, Cancer, and others of uncertain seat	49	5	6	21	15	2	41·4
3. Tubercular Class	203	89	61	45	8	..	180·8
4 Of Brain, Nerves, etc. ..	97	38	9	21	27	2	109·4
5. Of Heart, etc.	34	5	5	13	11	..	33·6
6. Of Respiratory Organs ..	74	38	5	11	19	1	83·6
7. Of Digestive Organs ..	73	31	12	12	18	..	62·8
8. Of Kidneys, etc.	10	2	1	3	4	..	10·4
9. Of Uterus; viz. — Puerperal Disease, etc. ..	10	1	3	5	1	..	7·2
10. Of Joints, Bones; viz.— Rheumatism, etc. ..	7	1	3	2	..	1	8 0
11. Of Skin, etc.	..	..	..	..	..	..	2·5
12. Malformations	2	2	..	..	..	..	4·6
13. Debility from Premature Birth, etc.	32	32	..	..	..	..	31·0
14. Atrophy	55	42	1	2	10	..	40·4
15. Age	34	..	..	..	17	17	39·2
16. Sudden	8	3	..	2	3	..	8·9
17. Violence, Privation, etc...	48	26	16	2	4	..	39·0
Causes not specified.. ..	4	3	..	1	..	..	3·5

BOOKS RECEIVED.

Annual Report of the Grant Medical College, Bombay. Eleventh year. Session 1856-57.

Phrenology made Practical. By Frederick Bridges. London: Sampson Low and Co. 1857.

The Pharmaceutical Journal. September. 1857.

Eleventh Report of the Commissioners in Lunacy to the Lord Chancellor.

Journal für Kinderkrankheiten. Juli und August. Erlangen. 1857.

A Lecture on Bodily Exercise. By Thomas Hopley, F.L.S. London. Churchill. 1857.

Transactions of the Medical Society of King's College, London. London. R. Boone. 1857.

Elements of Pathological Anatomy. By Samuel D. Gross, M.D. Third Edition. Philadelphia. 1857.

Fiske Fund Prize Essays. Philadelphia. 1857.

TO CORRESPONDENTS.

Dr. H.—It is not our custom to insert notices of marriages in this Journal.

Mr. W. Parker.—We cannot insert the communication.

A Correspondent requests us to inform him where he can obtain the best information regarding the most eligible neighbourhood in Upper Canada for a duly qualified Medical Practitioner. In answer to the second question, the English qualifications are sufficient, but we believe that it is necessary for the practitioner to procure, in addition, a licence from the local authorities.

Mr. J. Ferguson.—The discussion having been closed, we cannot re-open the subject, which is not of sufficient importance to occupy any more space in our pages,

Dr. Edward Simpson, of Bootham, wishes to obtain the address of Dr. Churchill, who has lately introduced the hypophosphite of lime treatment in phthisis, as he (Dr. Simpson) is personally interested in the matter, and wishes to ask Dr. Churchill a few questions.

Mr. J. B. F.—We had heard some particulars of the misunderstanding alluded to, but we think it unnecessary to introduce any notice of the matter into our columns.

Mr. F. A. Bulley.—The cases were published in the number for September 30, 1854.

E. B., Brighton.—The whole box of globules might be swallowed without doing either harm or good. The absurdities of Homœopathy are so glaring, that it is astonishing that any person above the condition of an idiot is deceived by them.

Juvenis.—Some part of the time should unquestionably be devoted to the practical details of pharmaceutical manipulation; for whatever may be the future destination of the Medical man, such knowledge will always be useful. It may be adequately acquired in a year or two, or even less; and may be combined with attendance upon elementary courses of lectures.

M.D. Edinburgh.—All the Hospitals in Paris are under the control of the Government. Foreigners are allowed to see the practice without payment; but if a Student intends to graduate in Paris, he must take out annually some inscriptions, for which he pays a small sum.

A Zoologist, Aberdeen.—The Museum of the College of Surgeons in London contains one of the best collections of specimens of Comparative Anatomy now in existence, but the British Museum is very much richer in objects of Natural History.

Mr. J. R. Sanders.—We cannot recommend any particular school. Your best plan will be to consult your Medical friends, and to be guided by their judgment and advice.

A General Practitioner.—It is impossible to lay down any rules as to the fees which ought to be demanded, for the circumstances must vary according to the condition of the patients, and the nature of the services rendered; but the sum mentioned appears to us to be reasonable.

Erratum.—Page 256, col. 2, line 30, *for* "morbid vaccine," *read* "morbilli, vaccine."

COMMUNICATIONS have been received from—
Chirurgus; Dr. Edward Simpson; Mr. W. Adams; The General Board of Health; Dr. Robert Lee; Mr. Ferguson; Dr. Hillier; Mr. Blackall Marsack; A Subscriber; Mr. W. Parker; The Hon. Secretary of the Bristol Humane Society; Mr. J. B. F.; Mr. Wordsworth; Dr. J. H. Aveling; Dr. R. U. West; Dr. M. P. James; Dr. H. Greenhow; Mr. F. A. Bulley; Mr. Atkinson; E. B., Brighton; Erinensis; Mr. J. R. Sanders; Juvenis; M.D., Edinburgh; A Zoologist; A General Practitioner; Mr. Parkinson; Mr. J. Haddon; Mr. Crawford; Mr. Izod; Mr. Turner; Mr. Brew; Dr. Crothers; Mr. J. Allen; Dr. R. Coulson.

APPOINTMENTS FOR THE WEEK.

12. *Saturday (this day).*

Operations at St. Bartholomew's, 1½ p.m.; St. Thomas's, 1 p.m. King's, 2 p.m.; Charing Cross, 1 p.m.

14. *Monday.*

Operations at the Royal Free Hospital, 1 p.m.; Metropolitan Free Hospital, 2 p.m.; Orthopædic Hospital, 3 p.m.

15. *Tuesday.*

Operations at Guy's, 1 p.m.; Westminster, 2 p.m.

16. *Wednesday.*

Operations at University College Hospital, 2 p.m.; St. Mary's, 1 p.m. Orthopædic Hospital, 3 p.m.

17. *Thursday.*

Operations at St. George's, 1 p.m.; Middlesex, 12½ p.m.; Central London Ophthalmic, 1 p.m.; London, 1½ p.m.

18. *Friday.*

Operations at the Moorfields Ophthalmic, 10 a.m.; Westminster Ophthalmic, 1½ p.m.

ORIGINAL LECTURES.

A COURSE OF LECTURES ON ORTHOPÆDIC SURGERY,

DELIVERED AT THE

Grosvenor-Place School of Anatomy and Medicine.

(ADJOINING ST. GEORGE'S HOSPITAL,)

By WILLIAM ADAMS, F.R.C.S.

Assistant-Surgeon to the Royal Orthopædic Hospital; Lecturer on Anatomy and Surgery at the Grosvenor-Place School; late Demonstrator of Morbid Anatomy, etc., at St. Thomas's Hospital, etc.

LECTURE XIII.

NON-CONGENITAL TALIPES VALGUS.

General Remarks—External characters—Special Effects of the Deformity — Morbid Anatomy — Pathology — Prognosis—Treatment.

GENTLEMEN,—The deformity of the foot which I propose now to consider is that which is generally described as talipes valgus, and known by the common appellation of flat foot, or splay-foot, a deformity both of congenital and non-congenital origin; rare as a congenital, but very common as a non-congenital affection.

External characters.—The name of this deformity sufficiently expresses its most obvious external character, viz., a diminution or obliteration of the longitudinal and transverse arches of the foot, which consequently presents a flattened and spread external form, most conspicuous in the non-congenital cases. The inner margin of the foot is depressed and the outer margin raised; and the anterior portion of the foot is always more or less everted, as exhibited in fig. 58.

FIG. 58.

Congenital Talipes Valgus in an Infant.]

Now, this eversion of the foot, which never exists to the extent which would admit of comparison with the inverted position of the foot in varus, has led to the error of talipes valgus being described as the exactly opposite deformity to talipes varus. A distinguished Orthopædic Surgeon commences his description of talipes valgus by stating, "This deformity is exactly the reverse of the last considered," viz., talipes varus. From this observation you would naturally expect to find in the morbid anatomy of valgus some important deviations in the relative position of the bones, analogous to the complex deviations in position which I have described in varus; but the reverse is the case: varus is undoubtedly the most complex deformity to which the foot is liable; but valgus, except in its severest grade, is one of the most simple, and even then is accompanied with comparatively slight and partial deviations in the relative position of the bones.

External characters modified by the conditions of the tendo-Achillis.—Although a flattened condition of the arches of the foot, with a variable degree of eversion, are the only essential external characters of valgus,—whether congenital or non-congenital,—the os calcis being in many cases neither elevated nor depressed; still, deviations in the position of the os calcis frequently exist in cases of valgus, and the external characters of the deformity are very materially modified by such deviations. The tendo-Achillis may be either contracted or elongated, producing elevation or depression of the os calcis (I speak of these conditions as belonging to the tendon, because it is a usual and convenient mode of expression; but I have previously explained that the essential changes take place in the structure of the muscles connected with the tendon). Hence orthopædic authorities always describe two modifications, or, as they are called, compound varieties of valgus, termed equino-valgus, when the tendo-Achillis is contracted, and calcaneo-valgus, when this tendon is elongated. But this additional subdivision is undoubtedly a useless complication of the subject, because experience has shown that the tendo-Achillis is, as a rule, sufficiently contracted in cases of congenital varus to require division; and I have repeatedly known this to be the case, even when the external appearances of the foot have led one of the highest orthopædic authorities to describe the case as one of calcaneo-valgus.

In such cases the arch of the foot is really reversed by the anterior portion of the foot being bent upwards from the transverse tarsal joint, at the same time that the tuberosity of the os calcis is elevated, and the bone held in a very oblique position by the contraction of the muscles of the calf; but the large mass of fat which exists in the situation of the heel in infants so completely conceals the os calcis, as to render it difficult to ascertain its exact position, and readily to mislead, if attention is not specially directed to the exact position of this bone. It is also generally admitted that the tendo-Achillis is sufficiently contracted to require division as a rule, in the severe cases of non-congenital valgus, and sometimes in the slight cases. It would, therefore, be impossible to consider the external characters of talipes valgus apart from the influence produced by the contraction of the tendo-Achillis, and, instead of regarding the contraction of this tendon as forming the basis of another variety of talipes, I am induced to regard it as one of the ordinary conditions of confirmed talipes valgus, especially in its congenital form, to which I propose in the present lecture at first to direct your attention. In speaking of non-congenital valgus, I shall again advert to the influence of the contraction and elongation of the tendo-Achillis on the arch of the foot in this deformity, because the modification thereby produced in the external characters are much more conspicuous in the non-congenital than in the congenital cases.

An elongated condition of the tendo-Achillis does not, I think, exist in congenital cases so frequently as is supposed, and the appearance of depression of the heel and elongation of this tendon is often deceptive. I have myself, in several instances, had to divide the tendo-Achillis at a late stage of treatment, in cases which, when undertaken, were considered to be cases of calcaneo-valgus. When it does exist in congenital cases, it appears to be of very little consequence, and does not at all interfere with the favourable termination of the case.

SPECIAL EFFECTS OF THIS DEFORMITY.—All the external characters of valgus above described become much more marked in youth; and in the adult, if the deformity be allowed to remain, and generally soon after the period of walking, this becomes a more painful and inconvenient deformity than varus. With varus, persons may not suffer for many years, or possibly through life, but with valgus they always suffer pain in walking early, and are sometimes quite unable to walk. They suffer earlier, and more certainly than in varus; but, at the same time, there is less fear of the very serious consequences, such as obstinate ulceration and sloughs from pressure, which I have described as occurring in adult varus.

MORBID ANATOMY OF CONGENITAL VALGUS.—In describing the anatomical conditions of this deformity, I propose to adopt the course I followed in describing the anatomy of talipes varus, and draw the description from a confirmed and tolerably severe case, mentioning, as we proceed, the deviations in excess or deficiency which characterize the severe and slight cases; rather than follow the plan adopted by some authorities, and describe three or four different grades of the deformity as so many subdivisions of the subject.

BONES.—Speaking generally, I have found from dissections that, even in the severe forms of congenital valgus, much less deformity and displacement of the bones exist than I have described in congenital varus. The tuberosity of the *os calcis* is elevated to a very variable extent; the deviation in position of this bone is generally slight; but in one severe case which I dissected, the tuberosity of the os calcis was nearly as much elevated as I have found it in a severe case of congenital varus. This will, of course, depend upon the degree of contraction

of the muscles of the calf, and, I imagine, could not be produced by any pressure resulting from position *in utero*, the favourite cause of this and other congenital deformities adopted by several orthopædic authorities. I regard this position of the os calcis, equally in valgus and in varus, as evidence of the dynamic or spasmodic origin of the deformity.

The astragalus is tilted forwards and downwards with a degree of obliquity proportionate to the elevation of the tuberosity of the os calcis where this condition exists. There is no very material alteration in the form of the head and neck of the astragalus at the period of birth, as in talipes varus; but in one very severe case I have seen the articular surface of the head of the astragalus a little altered in shape, in adaptation to the altered position of the navicular bone.

The navicular bone undergoes a movement of transverse rotation upon its horizontal antero-posterior axis; its inner extremity is much depressed, exposing the inner and upper portion of the globular head of the astragalus; and its outer extremity is raised, but not to a proportionate extent. The effect of these deviations is, first, to destroy the natural concavity of the arch of the foot, and, when severe, even to produce a convexity instead; and, secondly, to produce two prominences on the inner margin of the foot, one consisting of the exposed portion of the head of the astragalus, and the other of the inner extremity of the navicular bone. Both these prominences can be seen externally in all severe cases of valgus, both congenital and non-congenital, and their nature can be recognised by manipulation through the skin.

The cuboid bone, like the navicular, undergoes a movement of transverse rotation, so that its outer border is somewhat raised, but only to a slight extent; and in a severe case I have found the bone very little displaced.

The navicular, cuneiform, and cuboid bones, together with the tarsal extremities of the metatarsal bones, are all somewhat altered in their relations to each other, in consequence of the longitudinal and transverse arches of the foot being completely destroyed; and I have already explained to you that the longitudinal arch is even sometimes reversed, so that the plantar surface presents a convex instead of a concave appearance, the prominences of the head of the astragalus, the inner borders of the navicular and of the inner cuneiform bones being felt on the inner and under side of the foot, with depressions between them, caused by the separation of the articular surfaces of the corresponding joints. In these severe cases the os calcis is held in an oblique position by contraction of the muscles of the calf and the astragalus tilted forwards and downwards to a proportionate extent. The foot is, as it were, bent upwards upon itself from the transverse tarsal joint, and assumes a boat or canoe-like form.

The toes and the metatarsal bones are drawn upwards and outwards, so that the anterior portion of the foot is flexed upon the leg with a greater or less degree of eversion and transverse rotation outwards, the outer metatarsal bones being raised and the inner depressed. In some very slight congenital cases there may be only a little eversion of the anterior portion of the foot, with depression of the arch in consequence of the movement of transverse rotation at the great tarsal joint above described, without any drawing upwards of the toes and the metatarsal bones; but even in these cases it is generally necessary to divide the tendons of the extensor longus muscle in front of the ankle-joint, as well as the peronei, which alone might be supposed to produce such a simple movement of eversion.

Thus you will perceive that in a severe case of valgus, the transverse tarsal joint is a very important centre of motion, much more so than is generally supposed. The eversion of the foot, or more properly speaking of the anterior portion of the foot, appears to have been too frequently regarded as taking place from the ankle-joint, just as the inversion appears to have been similarly regarded in varus, and the apparatus employed for the treatment constructed accordingly; but it is quite clear that the ankle-joint takes very little share indeed in the production either of the inversion or eversion characteristic of these deformities.

Ligaments.—I cannot give you any exact account of the deviations of the ligaments in this deformity from my own dissection, nor do I find any such account recorded by any orthopædic authorities. There can be no doubt that this, as well as other portions of the morbid anatomy of club foot in its several varieties, has been surmised from the external appearances of the foot, rather than described from dissections. In one case of severe valgus in a fœtus which I dissected, my desire to preserve all the structures *in situ* prevented my making a minute dissection of the ligaments, but it was evident that the calcaneo-scaphoid ligament and ligamentous bands connecting the astragalus and the navicular bone on the inner side were elongated so as to allow of the rotation and uplifting of the navicular bone, and exposure of the inner portion of the articular surface of the head of the astragalus previously described. The deep inter-osseous bands of ligament connecting the plantar surfaces of the tarsal bones must also be elongated in many parts in consequence of the flattened and altered form of the arch of the foot. As the deformity is produced either by muscular contraction or position in utero, —I believe the former,—the ligamentous alterations, must be secondary changes, taking place slowly in adaptation to the altered position of the bones. These adapted ligamentous alterations in severe cases give a rigidity to the foot in its deformed position, and offer great resistance to its restoration, as in varus, though seldom to the same extent, and it is also fortunate that the severe cases of congenital valgus are less frequently met with.

Muscles.—In this deformity, as in cases of congenital varus, with the rare exceptions I have described, the muscles appear to be quite healthy in structure, and also free from any physiological defect; so that, after curing the deformity in an infant, the muscular power of the limb is perfect. If the deformity be allowed to remain, defective muscular growth will be evidenced by the leg remaining of small size, as in talipes varus; but this does not take place to the same extent, because, the contraction of the muscles and displacement of the bones being less in valgus than in varus, with some rare exceptions, more muscular motion is allowed in progression during the deformed position of the foot.

Tendons.—In consequence of the displacement of the bones being so much less in congenital valgus than in varus, there are no very important deviations in direction and altered relations of the tendons in valgus, such as I have described as existing in varus. The deviations in direction which exist in adaptation to the deformed position of the foot, are of no surgical importance.

The tendons which require division are, in slight cases, the peronei and extensor longus digitorum, and, in cases of greater severity, the tendo-Achillis. I should mention, however, that I have frequently found it necessary to divide the tendo-Achillis in cases of talipes valgus, which at first appeared to be too slight to require division of this tendon. After curing the *in*version, perhaps a contraction of the tendo-Achillis at a right angle is found to prevent the complete flexion of the foot at the ankle-joint, so that division of this tendon is the rule of practice, and appears to be necessary in all but the slightest cases. In the most severe cases, viz., those in which the arch of the foot is reversed, the os calcis raised by contraction of the muscles of the calf, and the anterior part of the foot drawn upwards towards the leg, it is necessary to divide the tendons of all the anterior muscles, that is the anterior tibial and extensor pollicis, in addition to the long extensor.

Vessels and Nerves.—No abnormal conditions or deviations in direction of any surgical importance of the vessels or nerves exist in this deformity.

Pathology.—a.—*Etiology*.—The various theories in reference to the cause and mode of production of this as well as of the other congenital deformities have already been discussed in the lecture on the general pathology of club-foot, *Medical Times and Gazette* October 20, 1855. I would, therefore, now merely observe, that the advocates of the mechanical theory—*i.e.* position and pressure in utero—urge it very strongly in talipes valgus. Mr. Tamplin, in speaking of congenital valgus remarks, "In my opinion it is position in utero, and position alone, which occasions this kind of deformity, as well as other congenital deformities that exist without malformation."(a) My late colleague, Mr. Lonsdale, was particularly fond of appealing to cases of valgus as evidence of position and pressure in utero; and certainly I am disposed to think that some of the slight cases of valgus, especially when associated with depression of the heel—cases which would be classed as calcaneo-valgus—may be produced by position and pressure in utero. The cases I allude to are such as would generally be cured by mechanical treatment without operation, and are analogous to the cases of slight inversion of the foot not

(a) On Deformities, p. 270.

infrequently seen, especially in very large children, and approaching in external appearance cases of varus. To me it appears very unlikely that the mechanical cause could operate so as to produce the elevation of the os calcis, which I have described as existing in well-marked cases of talipes valgus. I am, therefore, essentially an advocate for the dynamic theory, *i.e.* spasmodic muscular contraction, as applied equally to the production of valgus, and of all the congenital forms of club-foot.

b. *Numerical importance.*—I have already stated that talipes valgus, as a congenital affection, is of comparatively rare occurrence; and by reference to the table of 1780 cases of deformities of the feet, previously referred to, you will perceive that the congenital cases amount to 764, in which only 42 cases of simple talipes valgus are recorded, and 15 cases of talipes valgus of one foot associated with varus of the other foot. In the table above referred to, the relative frequency of the congenital deformities is exhibited as follows:—

Talipes varus	688
Talipes valgus	42
Talipes valgus of one foot, and varus of the other	15
Talipes calcaneus	19
Total	764

The 42 cases of congenital valgus were thus distributed:—

Affecting the right foot only	15
Affecting the left foot only	10
Affecting both feet	17

Thus you perceive that congenital valgus more frequently affects one than both feet, the reverse of what occurs in congenital varus.

c. *Co-existence with other deformities of the opposite foot.*—The 15 cases above referred to, in which valgus of one foot co-existed with varus of the other, were thus arranged:—

Talipes valgus left and talipes varus right . .	5
Talipes valgus right and talipes varus left . .	10

d. *Co-existence of talipes valgus with malformation of the bones of the leg.*—In several instances, probably ten or twelve in number, I have met with talipes valgus associated with some congenital malformation of the leg, such as—

1. *Defective growth of the leg bones*, below the knee, the tibia and fibula being from half an inch to an inch shorter than the corresponding bones of the opposite leg; of this I have seen four or five examples in infants.

2. *A sharp curvature forwards of the tibia and fibula*, in the lower third, the prominence of the convexity being about two inches above the ankle-joint; of this I have also seen four or five examples in infants, and in every instance there has been a deep-dimpled depression of the skin reaching to the bone, with which it was adherent, over the most prominent portion of the convexity of the tibia, which has also appeared to be shortened as well as curved.

3. *Malformation or absence of the outer malleolus*, probably with fusion of the fibula with the tibia. Of this I have one example now under my care in a very fat infant, in which it is difficult to make out the precise character of the malformation, but the outer malleolus is scarcely traceable in the deformed foot, while it presents its usual prominence in the opposite foot. I have also seen another case somewhat similar, but less severe.

Prognosis.—Except in the cases last mentioned, in which the deformity is associated with malformation of the bones of the leg, a favourable prognosis may always be given in cases of congenital valgus. The result will, however, be more perfect in proportion to the early age at which the treatment of the case is undertaken, as in varus. The deformity can be cured, and there are no conditions calculated permanently to interfere with the anatomical and physiological perfection of the foot.

Treatment.—The complete and permanent cure of congenital valgus can only be accomplished by a combination of the same general principles of treatment, including the operative, mechanical, and physiological means, which I have described as necessary to the successful treatment of congenital varus and other deformities. I have already stated that the tendons requiring division in valgus vary very much according to the severity of the case. In slight cases, division of the peronei and extensor longus tendons may be sufficient; but the tendo-Achillis frequently requires division; and in severe cases it will also be necessary to divide the tendons of the tibialis anticus and extensor pollicis muscles. In the latter class of cases, and in some of less severity, it is advisable to divide the treatment into two stages, as in varus; the object of the first stage being to overcome the eversion, transverse rotation, and bending upwards of the anterior portion of the foot—to bring the foot on a straight line with the leg, and, when contraction of the tendo-Achillis exists, to convert the valgus into simple equinus;—and the object of the second stage being to obtain the natural extent of flexion at the ankle-joint, when this is limited by contraction of the tendo-Achillis.

Mode of performing these operations.—I have previously mentioned that at the Orthopædic Hospital we divide all tendons from below upwards, cutting towards the skin. The tendons of the extensor longus and other extensor muscles, which, it must be remembered, are the direct flexors of the tarsus upon the leg, should be divided as they cross in front of the ankle-joint, where they are usually prominent and tense, when requiring division. To divide the extensor longus and peroneus tertius, the puncture should be made close to the inner border of the extensor longus tendon, and the sharp-pointed tenotome passed behind the tendons. When all the anterior tendons require division, this is also the best position for the puncture; because, after dividing the extensor longus, the knife can be re-entered from the same puncture, and passed beneath the extensor pollicis and anterior tibial tendons, without any risk of wounding the anterior tibial artery, if the point of the knife be kept close to the tendons.

Immediately after dividing the tendons, a pledget of lint should be applied, and held in position by a strip of adhesive plaster. The foot should then be bandaged to a splint placed in front of the leg and foot, and a little bent at the ankle-joint. It should be left quietly in this position till the third or fourth day, when the lint and plaster may be removed, the foot bandaged, and whatever apparatus it may be thought advisable to make use of applied.

Mechanical Treatment.—There are three forms of apparatus which you will find useful in the mechanical treatment of congenital valgus, either as adapted to cases of different degrees of severity, or to the different stages of treatment, where it is thought necessary that this should be divided into two stages, as above explained.

1. In the slight cases in which there is no contraction of the tendo-Achillis, or in which this tendon is but slightly contracted, so that it may be divided at the same time as the tendons in front of the ankle-joint, the ordinary *Scarpa's shoe*, with two cog-wheels at the ankle-joint, may be used; or rather I would recommend you the modification of the *Scarpa's shoe* in which Langard's arrangement of the cog-wheels is adopted, viz. placing the cog-wheel which alters the plane of the sole of the foot behind the ankle-joint, instead of at the side. The advantages of this arrangement, which I have already adverted to when speaking of varus, are very great, and I now employ it in all cases where it is necessary to have a double action. In valgus this arrangement is particularly useful, as it enables you to overcome the rotation of the anterior portion of the foot from the transverse tarsal joint.

If the *Scarpa's shoe* be employed, it is only necessary to remark that the horizontal side-spring must be on the inner side, instead of the outer, as in varus. A *Scarpa's shoe* made for the right foot in varus answers very well for the left foot in a case of valgus. A leather pad must be attached to the side-spring, so as to correspond to the normal position of the arch of the foot which it is intended to support, or rather to form, by acting as a fulcrum in this situation while the metatarsal bones are being drawn downwards and inwards by the toe-strap attached to the side-spring.

In cases in which it is thought desirable to divide the treatment into two stages, the Scarpa's shoe is the best apparatus you can employ in the second stage, viz. that of curing the equinus.

2. In severe cases, in which the tendo-Achillis is either elongated, so that the deformity may by some be regarded as calcaneo-valgus; or in the opposite condition, in which this tendon is so much contracted that it is necessary to divide the treatment into two stages, I recommend you to employ a straight splint, made of thin iron, and well padded, applied to the inner side of the leg, with a spring connected with its lower extremity, and passing along the inner border of the foot; a pad is connected with this spring, opposite to the navicular bone, and projects inwards and upwards in the normal direction of the arch of the foot; this forms a ful-

crum, over which the foot is made to bend in a curved direction, inwards and downwards, so as to put the peronei and extensor muscles on the stretch, by means of a toe-strap, which, connected at one end with the spring, passes round the metatarsal bones, and draws the anterior portion of the foot towards the spring, with which the free extremity of the strap is then also attached by a buckle. In this apparatus, by which the most severe cases in infants may be cured, the arch of the foot is, as it were, moulded upon the pad attached to the side spring.

If this apparatus be employed for the first stage of the treatment, it is scarcely necessary to observe that the *Scarpa's shoe* must be employed for the second stage.

3. In the most severe cases of congenital valgus in children, and more especially when these cases are met with in youth, and at more advanced periods of life, I would recommend you to employ a modification of the apparatus to which I have affixed my name, and which I advised to make use of in cases of congenital varus in the youth or the adult. The modification consists in placing the cog-wheels on the inner, instead of the outer side of the foot—only one instead of two cog-wheels with lateral action being employed—in adding a rotation cog-wheel corresponding to the transverse tarsal joint, for the purpose of controlling the rotation of the anterior portion of the foot from this joint, as a centre of motion; and in using a horizontal instead of oblique sole-plate.

By this apparatus you will obtain much more control over the severe cases than you can possibly command by the *Scarpa's shoe*, or the valgus splint with side-spring, already described, and it will answer equally well for both the first and second stages of the treatment.

Physiological treatment.—As soon as the foot is restored to its natural position, passive exercise should be commenced, as in varus, with the object of bringing the muscles into play, and of obtaining a well-balanced state of muscular action, such as is essential to the preservation of the form of the foot in a healthy condition.

After-treatment.—After the removal of the deformity, it will be necessary for the patient to wear some form of retentive apparatus, in order to allow all the structures,—bones, ligaments, and muscles,—to adapt themselves to the improved position of the foot, and to guard against relapse.

In the day-time, walking exercise of course being permitted, the patient should wear a boot with a steel-support on the outside, carried up to the calf of the leg, and having a free-joint at the ankle; inside the boot a pad of vulcanized india-rubber should be placed so as to support the arch of the foot; and a leather strap attached to the inner side of the boot should pass across the ankle-joint, and be connected by a buckle with the steel-support on the outer side of the leg. This apparatus will hold the foot in its natural position during progression, and will effectually support the arch of the foot. It will be required to be worn for at least a twelvemonth or more.

It is also desirable that the patient should continue to wear some form of retentive apparatus at night-time for six months or more after the deformity has been cured. This may consist either of the Scarpa's shoe, or simply of a metal sole-plate, with a steel bar connected with it, and carried up to the calf of the leg, in imitation of the Scarpa's shoe, but without any cog-wheels, so that it may be very light and of little inconvenience.

Relapsed cases.—Although cases in which this deformity has returned are occasionally met with, the tendency to relapse is certainly much less than in cases of varus, from the less complicated anatomical conditions of the deformity; and with the requisite attention to the after-treatment I think the tendency to relapse may be effectually controlled.

The International Statistical Congress.—At the last meeting of the International Statistical Congress, which was held on the 5th of September at Vienna, Dr. Farr, the representative of Great Britain, moved that the commission for making future arrangements should name the place and time for holding the next congress. The motion was unanimously adopted; and therefore Dr. Farr expressed a hope that the commission would be pleased to name London as the meeting place of the fourth congress. The proceedings of the congress were wound up with a cheer for the Emperor of Austria.

ORIGINAL COMMUNICATIONS.

SOME FACTS RESPECTING THE

DISCHARGE OF CHYLE FROM THE URINARY BLADDER;

OF FATTY MATTER FROM THE INTESTINES; OF LIMPID WATERY FLUID IN VERY LARGE QUANTITIES FROM THE LEFT NOSTRIL; OF SWEAT FROM THE LEFT HALF OF THE BODY AND THE LEFT EXTREMITIES ONLY; AND OF LOCAL SWEAT DRYING INTO PURPLISH BLACK POWDER.

By JOHN ELLIOTSON, M.D. Cantab. F.R.S.

CHYLE FROM THE URINARY BLADDER.

Like others much engaged in practice, I am frequently unable to read the Medical Journals as they come out, and sometimes am greatly behind-hand. It thus happened that I was late in reading a particularly interesting account of a fatal case of chylous urine, in a boy born at the Cape of Good Hope, by Dr. Priestley, in the *Medical Times and Gazette* for the 18th of last April. This brought to my recollection a case of my own, in which there were occurrences deserving of being communicated to the Profession.

I have had three cases of this disease. The first I published for the first time in 1820, in the third edition of my translation of Blumenbach's "Institutiones Physiologiæ," p. 277. I had related it to Dr. Prout, and requested him to examine for me specimens of the urine made before breakfast, soon after breakfast, and in the evening after an early dinner, and one specimen made after a fast endured at my request for twenty-four hours. The specimen procured in the evening was so little different from chyle, that, had it been shown to Dr. Prout as chyle, he would have been unable, he thought, to detect the imposition. The chylous character was less in the specimen made after breakfast; and still less in that made before breakfast, and its sanguineous and urinous characters were greater. That which was voided after a fast of twenty-four hours presented a much smaller coagulum, "and seemed to contain more red particles. The serous portion was nearly transparent, and possessed in a considerable degree the colour and other sensible properties of urine. Its specific gravity was 1·021, and it was found to contain an abundance of urea, and a large proportion of more perfect albuminous matter than either (any) of the other specimens." This is a quotation from the third edition of Dr. Prout's work, "On the Nature and Treatment of Stomach and Urinary Diseases," &c. 1840, p. 119, in which the whole history is detailed. The patient was a female about 30 years of age when the disease began; she bore a child during its continuance, remained in otherwise apparently good health for very many years, and died with it emaciated at the end of nearly twenty years from its commencement.

I met with another case in September, 1849. The patient was a working man, 32 years of age, and had laboured under the disease since the beginning of the year. He said that at first the urine showed but little coagulum, and stained the vessel red; that the urine made after meals was milky and coagulated in half an hour, whereas what was voided before breakfast appeared natural. He had become thinner and weaker, and had *pain in the situation of his kidneys*. I saw him but once. Dr. Prout had given him cod-liver oil, by which he believed that he was benefitted; I therefore prescribed it, with the cold shower bath.

My third case is that which I am anxious to make known. The patient is a lady in her 64th year; was first seen by me in January, 1845, and has now had the disease for eight-and-twenty years with intermissions.

In a letter which she wrote to me on the 20th of last July, she says, "I was taken ill of the disease suddenly in June, 1829, at Boulogne, and was attended by a French surgeon, who acknowledged he had never seen such a case, but thought it inflammation, and treated it as such by bleeding profusely—50 ounces in one day. The next week 12 ounces were taken from the loins by cupping on three different nights—36 ounces. Of course I was not better, but worse, and at the point of death; and I came to London to see Sir Benjamin Brodie. He sent me to Dr. Prout, under whose care I remained from September, 1829, till November, 1830. He tried

opium to a great extent; then acids, from Prussic acid to many others. But nothing had any effect upon the disease. I went to Hastings on account of a sick daughter in November; and, being fond of sea-bathing, went into the sea at eight o'clock in the morning, three mornings following, merely because I liked it. On the third morning the urine was natural. I had taken no medicine. I remained free from the disease for thirteen years, till July, 1843, having gone to India in 1836, and returned to London in 1838. In June, 1843, I had a severe attack of inflammation of the lungs, and was bled and took calomel, which saved my life in my doctor's opinion, but in mine brought on a return of my painful old disease in July. I took no medicine, nor saw any physician. In April, 1845, I "met with a sudden shock, a violent grief"—(I believe she stamped with emotion),—"and the disease ceased for a month. In June it returned as intensely as ever, and continued, without a day's change, for eleven years, till August, 1854. In that year I went to Boulogne to see an old friend, who could not come to me, and was attacked by a carbuncle between the shoulders, and recovered; the disease remaining suspended the six weeks of my illness, but returning immediately afterward, and continuing till November, 1856, when I had an attack on my lungs, and was in great danger. I refused to be bled or cupped, and recovered slowly by medicine. I remained very weak for six months. When I was better, the disease, which had ceased during this attack on my lungs, returned with its former violence, and so continues at the present moment. I take no medicine, for none ever changed or suspended the disease: only a serious illness or powerful emotion of the mind has any effect. I am content to suffer. I am in my sixty-fourth year, stout, 5 feet 3 inches in height, and weigh nearly 12 stone; very weak in body, but my mind full of energy."

I trust to be pardoned for the remark, that I incline to the opinion of this disease being an affection of the kidneys, or of that portion of the nervous system upon which their function depends, if there is such a part and such a dependence. The condition of the blood supplied to the kidneys must of course greatly influence the qualities of the urine secreted in both health and disease; but it is the secreting organ that engenders the fluid for the production of which the organ was created. In this disease the kidneys secrete the more chyle, accordingly as the sanguification of the chyle poured into the blood-vessels must be the less perfect from the shortness of the time elapsed since a meal. But, 1. There is no reason to suppose that the assimilating functions are in any stage less perfect than in health, or the blood sent to the kidney different from the blood of health materially, or at all. 2. There frequently has been pain in the region of the kidneys. In a letter dated August 3, the lady thus replied to an inquiry which I made upon this point: "I have a constant pain across the back, thighs, and arms above the elbows, particularly the left arm, sometimes more sometimes less; but am never free while the disease continues. No pain when it is suspended." 3. The kidneys have been found changed in their structure and composition after death from this disease. They have, it is true, been declared healthy in other examinations; and, if it is urged that neither sufficient pains are always bestowed in such examinations, nor is every one competent who employs the microscope, still we must remember that all functions may be disordered without any discoverable alteration in the organs,—without anything more than disturbed molecular action,—and that this disease is sometimes altogether suspended, and sometimes reproduced, as if it were not organic.

As the disease is now said to occur more frequently in hot climates, I inquired of this lady whether she had been born or had resided long in the East or West Indies. The following is her report:—

"July 24, 1857.

"My dear Sir,—I was born in India, but left for England when I was six or seven years old; returned there when fourteen; remained nine years there; returned to England in 1816, going again to Calcutta in 1819; but, finding my husband was dead, I remained only three weeks, and arrived in England after being absent ten months only. I again went to Calcutta to reside with my son and daughter in 1836, but meeting with an accident on board ship (a weight fell on my head, and fractured the skull), the Physicians said I could not live in a hot climate like India. I ventured to remain eighteen months, but a violent brain fever made me prudent, and compelled me to return once more to England in 1838, where I have lived since, except an occasional tour on the Continent. The disease was the same in Ireland, Scotland, France, Germany, and Italy. I was some months in the latter country. Climate has no effect. My parents I never knew, therefore can say nothing regarding their health. If you think the disease exists in the East you are mistaken. I inquired, when last in India, of every Medical man I met. No one had ever seen or heard of such a disease among the natives of India or Europeans. I am aware that Dr. Prout and Dr. Bence Jones (a) had some idea that it was from the East, but they were wrong. Excuse me for saying so. The disease is in the brain and nerves. I was always the most nervous of mortals, and it was only an exeellent education that prevented my being as weak in mind as I was in body. Give up East and West, and look to the head."

Dr. Prout, however, says that, of the thirteen cases which he saw, seven occurred in natives of the East or West Indies, or in individuals who had resided for many years in hot climates; and that a gentleman named Thomas, who had lived ten years in Barbadoes, informed Dr. Prout that during the time he saw "at least a dozen well-marked cases of chylous urine in negroes."

Curiously enough, while some have fancied that the assimilating process, and not the kidneys, is in fault in cases of chylous urine; it was, on the contrary, for a long time strenuously contended that the presence of albumen in the urine was a proof of *organic* disease of the kidney, and albumen anxiously searched for in most cases, and hundreds condemned to death who recovered. When I returned to England in October, 1827, from my autumnal ramble on the Continent, Dr. Prout told me that this had been proved. I expressed a doubt, but resolved to look into the matter carefully. Patients came under my care in St. Thomas's Hospital continually with inflammatory anasarca from accidental cold, and exhibited albuminous urine, but completely recovered. I was told that they only seemed well, that the renal disease still existed, and they would require treatment again. This was mere assumption, as I repeatedly contended in my earliest clinical and other lectures, which found their way into the press. I recollect receiving a long letter from the late Dr. James Gregory, of Edinburgh, with whom I had no acquaintance, giving numerous reasons to convince me that I was wrong. A more unsatisfactory letter I never received, for, to the presence of albumen in the urine he added many other symptoms, the occurrence of which, I had no doubt, would render organic disease highly probable; such as continued vomiting, emaciation, quickness of pulse, etc., but without which albumen may be passed with the urine. A barrister, who had for years been in the habit of consulting a Physician in London, came to town with ascites, and an enlarged, indurated liver, and excessive secretion of urine. No sugar was detected in his urine, but a little albumen, which was not mentioned to him, as it was unimportant, and to alarm him would have been wrong. He consulted a Physician at a watering-place, who instantly told him that something important had been passed over in his case, and sent him twice to London to consult another, instead of his habitual, Physician, who never saw him again. He was, after a time, tapped, and declared to have disease of his liver, as at the first had been found in London, and he died, as was to have been expected from the first, with such a liver, and with ascites; but the albumen in the urine had been made the grand affair before the family. It is, however, now acknowledged that the mere presence of albumen in the urine does not prove the existence of organic disease in the kidney; that many temporary and even unimportant causes will produce it, and that it may be of very short duration. I have seen a gentleman who has now passed albuminous urine for ten years, and is not weak, though subject to attacks of asthma, and having a murmur in his heart. I attended a youth who had anasarca, and an immense quantity of albumen, with epithelial cells, mucus, and phosphates in his urine, for at least a twelvemonth; but he has been in perfect health for five years, almost constantly on his legs, and often walking from twelve to fifteen miles a day, though during his illness one of his dropsical legs inflamed, and sloughed extensively. Mr. Charles Hogg has related his case in the second volume of the *Lancet* for 1855, p. 104.

(a) I considered it my duty to write to the lady that Dr. Bence Jones states he has cured such a case with gallic acid: but she took no notice of my information. The stomach of the patient whose fatal case I have mentioned from the *Medical Times* could not bear it

FATTY MATTER FROM THE INTESTINES.

On the 27th of November, 1832, I read before the Royal Medical and Chirurgical Society of London a paper, "On the Discharge of Fatty Matters from the Alimentary Canal and Urinary Passages," and it was printed in the eighteenth volume of their "Transactions." I adduced not merely recent examples, some witnessed by myself, of all the old wonderful cases of this kind, and even one example witnessed by myself of the most wonderful, in which oil passes from both the intestines and bladder, but related one case, which was under me in St. Thomas's Hospital, and in which, while pus, a substance not found in the healthy body, was passing from the air-passages, oil was passing from the intestines, and sugar from the urinary organs. I showed that, although in all the cases which had proved fatal and been investigated, there were found marks of disease, not, however, in all of malignant disease, in either the alimentary canal, the liver or the pancreas, and, in many cases, decided disturbance of the liver had occurred during life, organic change of neither the alimentary canal nor any other particular part is necessary to the affection, because some patients recovered completely, and some lived afterwards for years, and in fatal cases the liver, pancreas, stomach, intestines, and, indeed, the urinary organs had, one or more, been found healthy.

Since the publication of my paper, I have met with another case, and only one, of discharge of fatty substances from the bowels; and it is confirmatory of the fact, that organic change is not a necessary part of the disease. It has not yet been communicated to the Profession, and was first seen by me on the 28th of October, 1836. The patient is a short lady, inclined to be stout, fair, slightly sallow, with a bright redness of the cheeks, and œdema of the ankles. This was her appearance then, and this it is at present. Her age is now 66, and she has been a widow since 1824: she resides in the west of England, and I saw her a few weeks ago active and lively, though nervous and costive as she has been from youth, and apparently little changed for one-and-twenty years. All this time, and probably during seven years previously—for, in a letter just received by me from her she writes, "It was you who discovered the nature of my complaint"—she has passed lumps of fat from the bowels, like large and small peas. At first they were very small, but were not examined till she consulted me. They are followed by flakes of yellowish-white mucus, and she suffered much abdominal pain till the last three or four years. The rest of the evacuation is feculent, sometimes of a bright yellow, sometimes dark and greenish. The disease does not appear likely to shorten her life, or materially impair her health. She thinks that fewer lumps are discharged now than formerly.

LIMPID WATERY FLUID IN VERY LARGE QUANTITIES FROM THE LEFT NOSTRIL.

I was consulted on July 19, 1842, by a single lady, nearly 40 years of age, of darkish complexion, stout, of good height, and in excellent general health, on account of a profuse flow of watery fluid from her left nostril. It had begun in the West Indies, and had been going on for thirteen months.

This was the second attack of the disease; and the first, which occurred fourteen years previously, also in the West Indies, lasted eighteen months, and suddenly ceased without obvious cause one night, after having been as profuse as ever the day and, indeed, the evening before. She had gone to bed with napkins arranged about her face as usual, to receive the discharge; but on waking at three in the morning found these all dry, so that the secretion must have ceased as soon as she fell asleep. She experienced no inconvenience, nor any sensible effect from this sudden stoppage. That attack had begun after she returned from the opera on foot, not being able to find her carriage, with no covering on her head, one night in January. She felt a violent pain in her head, and seemed to have a cold in it, and the next day, as the pain declined, the left nostril began to run, and by the evening she felt no more pain, and the discharge was at its height. By ascertaining how much fluid was discharged during a given time, it was calculated that the quantity of fluid which poured from the left nostril during the attack must have amounted to two rum puncheons and twenty-five gallons.

In the present attack the fluid was more copious than in the first. I found it colourless, without odour, and so watery that the handkerchiefs dried soft, and served again without the necessity of washing. She required five and thirty daily. Three quarts had been discharged in a day. A number of towels were placed about her face and neck when she went to bed, and when they became saturated she always awoke from their wetness and coldness. She was compelled to sleep nearly upright. There was no sneezing. If she stooped the fluid streamed from the nose. She felt no thirst and drank little more than in health. All her other secretions and functions were undisturbed. Her legs at one time were œdematous, but not since she came to England. I found her pulse 80, and in all respects good. She required a good deal of stimulus, drank eight or nine glasses of wine every day. All causes of debility, excitement, heat, and especially damp, aggravated the complaint, and the quantity of wine produced nothing beyond a feeling of comfort. This second attack had arisen from no evident exciting cause, had not been preceded or attended by headache, had increased slowly, and arrived at its height in fourteen days. She was sitting at needlework one day, and observed a drop of fluid upon the muslin from her nose. In a quarter of an hour a second drop fell, and she exclaimed, "I hope my old complaint is not coming back," bent her head forwards, and the clear fluid streamed forth. The treatment in the first attack had been more terrific than that of the lady with chylous urine at Boulogne. It consisted of repeated very copious bleedings in the arms, cuppings, leeches to the nose, blistering behind the ears, each pair of blisters being kept open for a week, strong purgatives, fruitless attempts at salivation by mercury, saline draughts, and low diet. At the commencement of the second attack ice was applied in bladders to the head, and in the form of plugs inside the nose; shower baths were given, and low diet enjoined. There being no improvement, her family wrote over to Sir Astley Cooper, who advised the good living in which I found her so properly indulging on her arrival in England. I was at a loss what to prescribe for the best, and gave her tannin and gallic acid three times a day, in gradually increased doses; secale cornutum, which had just been greatly praised for its effects in different hæmorrhages. Finding that I did her no good, I advised her to take no medicine, but live well and spend no more upon doctors, as I presumed the disease would cease spontaneously. At the suggestion of a friend she consulted Sir Benjamin Brodie in February. He prescribed a grain of sulphate of zinc, with three grains of extract of sarsaparilla, to be taken three times a day; and an injection of a scruple of sulphate of zinc and a drachm and a half of tincture of galls in eight ounces of water. Three weeks after his prescription was begun the discharge declined a little, and it slowly lessened till it ceased entirely in the middle of May: and it has not returned. Although the prescription was excellent, I doubt whether it cured the disease. Few have employed sulphate of zinc more than I have myself, and I have not once seen it act as an astringent when administered internally; never seen it arrest hæmorrhage as lead does when taken by the mouth, never known it even confine the bowels. If it was useful in the present case I think it must have been as an anti-hysterical remedy; and it is in truth the very best, and the disease might belong to the multifarious class conveniently called Hysteria. Still the dose was small, and no improvement took place for three weeks, during which period the dose was not augmented. The injection might have acted powerfully in arresting the excessive secretion by the nasal membrane. Still no diminution occurred for three weeks. The first attack ceased at the end of eighteen months; the second at the end of twenty-three. The first began suddenly and ended suddenly; the second took place slowly and declined slowly.

Professor Rodgers has been so obliging as to analyze a specimen of the fluid, preserved by me in a phial till the present moment:—

The specific gravity is		1·010
It contains water	98·885	
Mucus	·104	
Chloride of sodium, Sulphate of soda, Soda combined with mucus	1·001	

Traces of lime and phosphoric acid.

I must mention that during the two attacks she occasionally had a cold in her head like other people, and lost her smell and voice, and discharged thick opaque mucus from both nostrils, as is usual in catarrh: but that the limpid watery fluid continued to drop from the left nostril, just as when she

had no cold. Her habitual three or four glasses of wine now produce the same comfort that double the number did when she laboured under the disease.

After she had remained well about five years the right ovary became dropsical. Two royal Accoucheur-Physicians saw her separately, and were of this opinion. I afterwards visited her, and had no doubt upon the matter. She was very large; and the swelling, chiefly of the right half of the abdomen, afforded a distinct undulation. We were unanimous that medicines would be useless or injurious, and that tapping should not be performed before the distension rendered it indispensible. While her nose was running mesmerism was tried, but as it produced no sensible effect, and she had no faith in it, the trial was given up in a fortnight. Now that she found herself the subject of a formidable disease, for which no hopes of a remedy were given her, she became anxious to employ it, and my opinion was requested. I replied that I had not known it used in such a case; but, as I could suggest nothing likely to be of service, I thought it worth a trial. The family governess was shown what to do. It was commenced a year and a half after the dropsy had been obvious, and was continued daily for fourteen months, at the end of which she was well, and she remains so to this hour. She became drowsy in two or three sittings, but, though this always took place, perfect sleep was never induced. The abdomen began to lessen in about three weeks, and continued to lessen half an inch every week, till it recovered its natural size, and gave no more fluctuation. I have since witnessed a still more remarkable cure (see the *Zoist*, No. 50), and another case of long duration and great severity is deriving remarkable benefit: and both patients had been tapped some dozens of times.

SWEAT FROM THE LEFT HALF OF THE BODY, AND THE LEFT EXTREMITIES ONLY.

On the 9th of last June a gentleman, 24 years of age, from the country, consulted me on account of feeling very weak and perspiring very much more than usual for nearly the last three months. The perspiration, however, was confined to his left half. This peculiarity he had noticed for only four years. If it had existed previously it had not struck him; for up to that time he had perspired very little. Yet the left half of the head was always as dry as the right. The perspiring parts, from the neck to the toes, had too much sensibility; but neither this nor the perspiration was greater in the lower than the higher of the affected parts. On the night before he began to perspire copiously, his left foot for the first time remained cold after his customary bathe and sponging with cold water.

I prescribed for him a mixture consisting of a drachm of sulphate of iron, a drachm of disulphate of quinine, three drachms of dilute sulphuric acid, and seven ounces and a-half of water. Some of this was to be taken at 10, 4, and 10 o'clock during the day, in a wine-glass of water; at first a drachm for a dose, then two, three, and even four, provided these increases perfectly agreed with his head and stomach. I also directed him to sponge the left side of his person below the head, night and morning, with half-a-pint of cold or tepid water containing a drachm, and, if necessary and not too stimulating, a drachm and a-half, of dilute sulphuric acid. This application I have found extremely useful in arresting excessive perspiration, whether in phthisis, acute rheumatism, mere debility, or any other disease,—far more serviceable than internal medicines; but these I prescribed, in the present instance, on account of the debility.

Authors have recorded instances of sweat from only a vertical half of the system, from a horizontal half, and from more limited portions.

LOCAL SWEAT DRYING INTO PURPLISH BLACK POWDER.

In the 28th volume of the Transactions of the Royal Medical and Chirurgical Society of London is "an Account of a Singular Case, in which there was a Black Secretion from the Skin of the Forehead and upper part of the Face," written by the late Mr. W. Teevan. The patient was a young lady, 15 years of age. The discoloration never appeared in any other part of the body. An attempt to wash off the black matter gave her so much pain that she desisted; and she was not aware that it could be removed by ordinary means till Mr. Teevan removed it with soap and water; and the quantity washed off darkened four basinfuls of water as much as if Indian ink had been put into them. Such precautions were taken as to prove that there was no deception in the case. She had and still suffered from a "severe pain in the chest"—hysterical neuralgia, I have no doubt. The matter did not reappear till from four to six months after its removal, and its reappearance was ushered in by pricking and burning in the parts. She happened to be attacked with erysipelas of the forehead down to the sternum, and one day vomited "two large basinfuls of fluid," containing an immense quantity of black matter, which subsided to the bottom, and proved, on analysis, and under the microscope, to be identical with that upon the face, and looked and smelt exactly like soot. Some passed from the bowels and urinary bladder, the face remaining free from discoloration all the time. At length violent pain seized the abdomen, and the black matter again presented itself in the face, but soon declined and disappeared for good in about a fortnight, and she acquired tolerable health.

The case was supposed to be the only one on record. As far as my reading extends it is. But I have had another under my view for some years. The patient is a single lady, about forty years old. Above twenty years ago she had various symptoms, such as we witness in anomalous hysteria. I was consulted on account of violent and obstinate vomiting. She felt the repugnance for flesh flood so common in these cases; it made her sick; and if beef-tea were clandestinely put into an enema, she always discovered it by the sickness which it caused. She had severe neuralgic pains, violent spasms, even opisthotonos, and convulsions, and lost the use of her legs, one of which exhibited thickening of more than one joint. She is still confined to her bed and couch, and has lost all her teeth except five, but her health is much better. I had not heard of her for many years, till about five years ago I accidentally learnt that a curious blackness had shown itself around her eyes and on her bosom. On calling upon her, I saw this strange state of things:—She looked as if Indian ink had been rubbed abundantly around each eye and upon her bosom. On applying the tip of a finger along the black parts, a fine powder came off upon it. She was so good as to wash some away and give me in the water with which she had washed it off. This I put away, like the limpid fluid from the nose of one lady, and the fatty lumps from the bowels of another, till the present moment. She refused when I saw her again lately to give me any more, saying that the late Dr. M'Intyre and the late Mr. Dalrymple had analysed it sufficiently. The blackness of the parts is most intense and remarkable about the eyes, but none is now secreted upon the bosom. On viewing it sideways I discern a purplish tinge.

To wash it off occasioned a little irritation of the skin, and the parts sometimes felt slightly sore. Emotion would cause the secretion to come forth copiously, if it had been cleared away by washing. The secretion was of course rather moist at first, but rapidly dried.

The recorded case occurred in 1845. The case which I now state began about two years later—ten years ago—and, we find, still continues.

The black matter scraped from the face of Mr. Teevan's patient was found by Dr. G. O. Rees to be composed of carbon, some unknown combination of iron, lime, albuminous matter, fatty matter, and alkaline phosphate and chloride. It was insoluble in water; yielded fatty matter to alcohol; the blackness was unaffected by caustic potass, or strong nitric acid. It reddened litmus paper moistened with distilled water, and, when burnt, gave a strong odour of decomposing animal matter. Professor Rodgers has also been so good as to examine the specimen obtained from my patient, and find it to be "almost pure carbon, contaminated with traces of fatty matter, but in too small a quantity for determining accurately the composition."

While the little phial of black powder in water was in my pocket for Mr. Rodgers, the cork came out and the fluid drained away; but, as the phial had for years laid on its side, the powder adhered to the glass, and this was all I could give him.

DR. VOGEL.—We are happy to find that there is some hope that the life of Dr. Vogel has been spared, as it has been reported that he had been summoned to the presence of the Sultan to Warai, the capital of Wadai, and that Lord Clarendon is making strict inquiries into the truth of the report.

PROFESSIONAL RESPONSIBILITY OF ADMINISTERING CHLOROFORM.

By M. P. JAMES, Esq., M.D.
M.R.C.S. Eng., L.M., L.S.A., etc.

The late discussion at the French Academy of Medicine having left the subject where it found it, has opened in the *Medical Times and Gazette* the consideration of professional responsibility in the administration of chloroform. Dr. Aveling and Mr. Aspray may be looked upon as representing the due north and due south in the compass of British Medical opinion, between which the great majority of points must lie. A correspondent inquires whether a surgeon could, "in case of accident, be held blameworthy for giving chloroform alone for evulsion of a toe-nail, extraction of a tooth, or to allay the pains of natural labour." Dr. Aveling's (a) "firm conviction, drawn from actual experience, is, that any surgeon, with a moderately good head upon his shoulders," may do so "with perfect safety;" while Mr. Aspray (b) maintains that before doing so, "we are bound to hold a consultation." Such difference of opinion obtaining both in England and France, the following observations on the degree of Professional responsibility may not be ill-timed:—

I. Few will be found to deny, that whether alone or in consultation, he who administers chloroform should be held responsible for the exercise of due care for his patient, and for the possession of adequate knowledge of the effects of the agent he undertakes to employ; and, now that its use has become so general, it is the undoubted duty of every surgeon to inform himself most fully respecting its qualities. But while thus much is required, and a plea of ignorance on such a topic could only expose to merited contempt, no one can ever be expected to do more than keep pace with the progress of medical science.

II. The surgeon may be deemed by many, to be responsible for the exercise of skill and care in preventing occasional ill effects. Passing by the mere inconveniences of headache, nausea, vomiting, etc., the statement that chloroform has produced sudden death is sufficient warning that it may do so again. The results of the autopsies teach us little as to its prevention, and perhaps but dimly point to the chest as the source of danger, which every prudent man examines before administering the anæsthetic. He who exercises all the precautions which experience or suspicion has taught us, cannot be accountable for those sudden deaths which will occasionally occur, and cast their gloomy shadow over the brilliant achievements of modern surgery.

III. The purity of the chloroform, though often a subject of anxiety, has not yet appeared to exercise any special effect, though a mixture of chloroform and ether may perhaps be deemed to do so. At any rate, the surgeon would be scarcely expected to do more than procure it from a respectable tradesman.

IV. The mode of administration is still an unsettled point. The simple handkerchief may be safely pronounced the most usual mode in this country; and "in Paris there is only one surgeon who uses an apparatus." With such facts as these, and the verdict of the French Academy before him, who will venture to pronounce the handkerchief "blameworthy"? If an inhaler be used, the surgeon is surely responsible for such a knowledge of its construction, and such dexterity in its use, as will prevent it from becoming an instrument of mischief in his hands.

V. It is always to be maintained, that the surgeon should obtain the sanction of the patient to its use. In midwifery practice, even where the surgeon desires to give it, he will not unfrequently be met with such objections as these: "If woman's curse, according to the Scripture, is to bring forth her children in sorrow, is it not wrong to attempt an escape?" "If I do not endure the usual pains, I may not love my babe so well?"—and others of a similar nature, which, if he has not wit enough to parry, he had better agree with the objector, and omit to give it. It has sometimes been thought that the surgeon should possess a proof of consent, in case of accident or a charge of over-persuasion; but a judicious man would scarcely incur the latter charge; while in the former, the fact of its being taken would be deemed sufficient proof.

(a) Medical Times and Gazette, Aug. 8, 1857.
(b) Ibid. Aug. 8 and Sept. 5, 1857.

VI. There must, necessarily, be some amount of responsibility respecting the cases in which so powerful an agent is recommended. After the positive assertions of some authorities who advocate its use in "serious operations," it may appear somewhat presumptuous positively to support it in what are termed "minor ones." The interests of the community, however, demand a fair consideration of every point. It will scarcely be denied, that the one great object of its administration, in every case, is the prevention of unnecessary pain; and, however great its other virtues—and who does not feel them great?—prevention of pain is the sole reason of a patient consenting to or desiring it, and in most cases the sole ground of its recommendation. If it were generally held that chloroform added very appreciably to the risk of a capital operation, there are not a few who would persuade their patients to forego its use, or even refuse to operate under its influence. Where then rests the objection to it, in painful operations, attended with only trifling risk to life? Every one who has been called upon to perform "evulsion of the toe-nail" will admit it is far less endurable than many comparatively fatal procedures; and not a few would refuse personally to submit to the operation, unless some professional friend would undertake the administration of chloroform. Can those who feel thus, refuse their patients a boon of which they would gladly avail themselves, lest they should incur a blame which they do not deserve? The honest Surgeon ought never to allow a jealousy of a reputation for uniform success to counterbalance his patient's interest.

It will be advisable, in all operations about the mouth, to forego its use as far as consistent with these principles, because the risk of suffocation from blood passing the glottis, although not considerable, should be fairly balanced; and the Surgeon must be prepared to exercise all his vigilance to prevent danger or complication arising from this source. This vigilance duly exercised, his responsibility ceases there.

The third case brought forward in the *Medical Times and Gazette* is its employment in midwifery. Upon the principle advanced above it would be found somewhat difficult to refuse it whenever it were wished; for, although it may be urged that the process of parturition, being natural, and often easily or rapidly performed, it would be unwise to complicate it with an external element of danger or anxiety; yet the question still presents itself whether the pain saved does not justify the very trifling risk. And this question returns with tenfold force, when we fairly estimate the different ratio of risk in obstetrical and surgical cases. For, be it remembered, that in Surgery the danger arises from the extent to which insensibility must be carried to secure immunity from the agony of the first thrust of the knife. This point passed, the patient may be suffered to return some degrees towards consciousness; and, the vapour being removed, an occasional whiff, as signs of too rapid return to sensibility occur, will keep him free from pain. But in natural labour this profound anæsthesia need never be induced, and the degree of insensibility which is requisite need not be kept up; but intervals of perfect consciousness being allowed, an inspiration or two of the vapour given on the approach of the pains, will be amply sufficient to secure its benefits. The comparative safety of chloroform in midwifery is still more strikingly exemplified in the fact, that although given more frequently, and kept up for a longer time for this purpose than any other, no fatal case is, I believe, yet on record. Surely such a fact ought not to be without its weight on every candid mind.

VII. Aware that the above observation would apply to cases where consultation is held, and two Surgeons are present, I would further submit there are many cases in which it is justifiable to give it alone.

In considerable operations, in which the attention of the Surgeon is fully occupied, he is usually provided with competent assistants, to one of whom the chloroform may be safely confided. But it has not unfrequently happened, that the Surgeon has been compelled to operate without the assistance of any one acquainted with the first principles of Surgery; and in such cases I hold that chloroform, if at hand, should decidedly be given, not only because it will assuage the pain and anxiety of the patient, but because, by enabling him to pursue his dissection calmly and leisurely, it will materially assist the Surgeon, and contribute to a favourable issue.

That it is a matter of convenience, rather than necessity, to confide the chloroform to a second Surgeon, is implied in the statement—now current in the London clubs—that M. Vel-

peau, than whom no greater Surgeon breathes, has given it *alone* upwards of a thousand times. But as capital operations do not constitute the daily duties of the Surgeon, it may be well to look at one or two more practical points. Associated as the history of Anæsthetics is with Dentistry, and frequently as the painful removal of stumps is required; whether chloroform should then be given is a point of moment both to practitioner and patient. Looking upon this agent as a means of preventing pain, it will be readily granted that frequently there is, so far, an urgent necessity for its use, but inasmuch as operations about the mouth may be considerably complicated thereby, and even the risk appear in greater ratio than usual, the advisability of giving it must be measured only by the probability of unusual pain, and the patient's powers of endurance. In these cases, on account of the complication, I should always prefer a second Surgeon to administer it, where there is one accessible, and a sufficiently friendly feeling exists. Nor let it be thought that by this remark I carelessly reflect on the esprit de corps of my professional brethren. That such an obstruction will occasionally be thrown in the way, is attested by the fact that three Surgeons lately refused me their assistance in such a case. Acting, however, in accordance with the principles I have enunciated, and deeming it right that the patient should have chloroform, I administered it *alone*, and then proceeded to perform the operation, the increased difficulties of which were easily surmounted.

A third class of cases where chloroform should or may be given without a second Surgeon present, includes cases where no operation is proposed, as tetanus, hydrophobia, delirium tremens, dysmenorrhœa, tic douloureux; and perhaps we may also name the reduction of hernia, or a dislocation.

Its employment in midwifery may be mentioned separately, as it is a source of some difference of opinion, and not a little anxiety. To advocate its employment, but to deprecate the same attendant superintending both the chloroform and the delivery, is virtually to condemn it, for we are immediately met with overwhelming objections to the presence of a second.

The time and attention of two attendants must necessarily be taken up, and as necessarily be paid for, were the practice to come into vogue. Further, while it is even now a source of annoyance and dissatisfaction for a lady to be compelled to call in the aid of the opposite sex in her hour of trouble, how much greater when it is proposed for two to be present! If this was held the practice, how many modest women would endure their pangs, rather than enjoy immunity therefrom in the presence of two men! Reflecting, then, as far as statistics guide, with what "perfect safety" it may be given to a parturient woman, I cannot, when asked, refuse to give her relief in the "hour of Nature's sorrow," nor can I refuse to afford that relief *alone!*

Finally, I would advert to one phase of professional responsibility deserving the attention of all. It is not unfrequently said, that by calling in a second Medical man the attendant divides with him his responsibility. This may be an easy mode of appeasing conscience for undue neglect, but let it ever be remembered that he who recommends any procedure in the whole range of Medical science is responsible for the advice so given being, according to his judgment, likely to be followed by beneficial results. Of course it is not maintained that Medical science is exact, that its results may be predicted with certainty, or that the most able of its cultivators may not be frequently mistaken; but every one recognises the axiom, that the Surgeon is bound by every feeling of honour and humanity, to give his patients his best advice; and in this axiom is included the recommendation to take chloroform.

It is well known that the attendant usually examines his patient before a consultation is proposed; he recommends chloroform, and on the strength of his recommendation the patient takes it. If another is called to administer it he never or very seldom considers the propriety of doing so. He gives it on the faith of the attendant's judgment, for the accuracy of which he can never be held responsible. True, he undertakes carefully and skilfully to administer the agent, but there his responsibility ceases; and, although to the public the presence of the second may appear to lighten the burden of the first, yet he who recommended it must never suffer himself to be led away by such a fallacy. And should an accident unfortunately happen, he should feel that his only justification must lie in the care he exercised in pronouncing his judgment, and the support that judgment receives from the principles of Medical science. Let this position be duly appreciated, and it becomes a safeguard to the patient; and if to the Surgeon it be a source of some anxiety, of which a different view would rid him, yet should he not meet with uniform success, though for a moment a thoughtless public might fancy him to blame, he will carry in his breast the satisfaction that he has brought to bear upon the case the most disinterested judgment, that he has employed all the means that science has placed at his disposal to secure his patient's welfare, and that he has never suffered himself to shirk his duty for a show of semi-success, by attempting to divide an indivisible responsibility.

Braintree.

OBSERVATIONS

UPON THE TREATMENT OF CERTAIN

DISEASES OF THE KNEE-JOINT BY THE OPERATION OF RESECTION.

By P. C. PRICE, Esq.

Junior Surgeon to the Great Northern Hospital, Surgeon to the Metropolitan Infirmary for Scrofulous Children at Margate, etc.

(Continued from page 247.)

In considering what operation is best suited for the removal of a knee-joint destroyed by this form of disease, it is encouraging to be enabled to strengthen theories by facts, and give a more general denial to opinions which are far too widely entertained, and too freely promulgated.

It has long been a point of discussion whether isolated strumous cavities in the heads of cylindrical bones are ever repaired. Judging from Museum preparations, such a result might be considered of not very frequent occurrence, although it cannot be denied that reparation does occasionally take place. My own conviction is, that nature more often replaces the destroyed structure, or, speaking with greater correctness, provides an excellent substitute, than is generally supposed; and my friend, Mr. Chalk, who for several years enjoyed a very considerable experience at the Royal Sea-Bathing Infirmary at Margate, inclines to the same impression. When the foreign material deposited in the spongy texture is eliminated, either into the neighbouring articulation or by perforation through the shaft and periosteum, a strong effort of repair is made by nature, influenced in kind and degree by various circumstances, as the amount of damage inflicted, the constitutional powers of the patient, etc. The nature of this repair may be of various kinds. The membrane lining the cavity may alter in structure, becoming tougher, and increasing in size, take the place of the extruded material. A tissue, more or less fibrous, may fill up the empty cavern, and act as the mother structure, from which bony material may be generated. Or, provided the lining membrane be removed, there is no reason why the healthy margins of bone should not supply the want of osseous substance. During the time that the deposition and subsequent elimination of this morbid material is going on, accompanying inflammation alters the conditions of surrounding parts. The bone immediately circumscribing the cavity becomes more compact and consolidated in character, less vascular, and paler than is natural. Such are the beneficial changes that may take place; but it not unfrequently happens, especially when the affection occurs in delicate and ill-nourished children, that little or no reparative action follows for some considerable time, and that a thin, unhealthy, sanguineous fluid is poured out through fistulous channels, more or less indicative of existing caries.

The reparative changes, however, that do succeed under favourable circumstances are sufficient to encourage a hope that, taking away the entire disease by art, when a demand is made for removal of the destroyed articulation, will enable the surgeon to give his patient a useful limb, and so prevent a resort to the dreadful expedient of amputation. Associated with the treatment of this form of disease by removal of the joint by resection, are the names of Fergusson, Jones of Jersey, Barnard Holt, Henry Smith, and others, equally familiar in the history of modern and conservative surgery. I have myself also resorted to the operation, and with signal success. By adducing a short history of some successful cases which have been treated, I trust I shall be doing more to convince those members of the profession who are still obnoxious to the operation and its application, than by the

most enthusiastic recommendations based solely upon theories and expectations.

Case 1.—Mr. Fergusson, on March 1, 1856, at King's College Hospital, removed the knee-joint of a young woman aged 20. About three quarters of an inch of the femur and tibia were removed. In the centre of the head of the tibia, was a cavity filled with purulent and scrofulous matter. The chief mischief was confined to the head of this bone, the condyles of the femur being but secondarily affected. This girl made an excellent recovery to health before leaving the Hospital, which she did some few months after the operation; but the connecting medium between the surfaces of the bones was anything but firm, and it was not till refreshed and improved by a residence in the country that the union became solidified by osseous material. This case is alluded to by Mr. Butcher in his second excellent memoir on "Excision of the Knee-joint," as showing the "certainty of improvement in the condensation of the parts around, and in the vicinity of the excised joint, as time advances."

Case 2.—Mr. Jones, of Jersey, removed the knee-joint of a boy in 1851. The case is honoured with a place in the "Royal Medico-Chirurgical Transactions" for 1854, vol. xxxvii. Mr. Jones, writing to me lately, gives the following graphic description of the conditions of the joint:—"The joint, which had several fistulous openings communicating with the external surface, was distended with thin, grumous, greenish-yellow tuberculous pus. The crucial ligaments were so far disorganised as to break down easily. The semilunar cartilages were dotted over with masses of cheesy tuberculous matter. The cartilages covering the articular ends were injected, vascular, and eroded, and the bones were softer than natural; an abscess, the dimensions of a tolerably large walnut, existed in the external condyle of the femur, the pus it contained being of a tuberculous character. The bone was extensively gouged all around the space it occupied, and the cut ends brought into apposition. The synovial membrane had undergone a lardaceous rather than a pulpy change, and presented here and there interstitial tuberculous deposits. It was a case of genuine tuberculous disease of the knee-joint and surrounding structures. This patient died two years afterwards, but not with any disease connected with the parts. The connecting medium, on examining the parts, is fibro-cartilage, with osseous granules interspersed. The attachments to the ends of the bones are in the usual manner."

Case 3.—Mr. Holt, on the 7th of August, 1854, removed, at the Westminster Hospital, the knee-joint of a little boy aged 8 years. He had been injured in the knee two years before his admission. Mr. Holt, writing to me on July 30th of the present year states:—"The disease was unquestionably strumous infiltration of the femur and tibia, with slight ulceration of the cartilages. The operation you saw. I had an opportunity of seeing the child about six months since, and upon examination found the limb had grown in precisely the same ratio as the sound one. He had continued to walk on it ever since he left the Hospital, and can now run as fast as any boy. There is no pain or recurrence of the disease, although I detected one or two sinuses still discharging a thin watery fluid, but he was so well I could not induce him to come into the Hospital. Upon the whole, I think the case may be considered most satisfactory. The union is perfectly solid; the anchylosis bony."

Case 4.—Mr. Henry Smith, on October 18th, 1854, removed the knee-joint of a boy aged 6 years. Mr. Smith writes on August 6th, 1857, "I saw the little boy yesterday on whom I performed excision of the knee-joint in October, 1854. I am glad to tell you now that the bones have become perfectly anchylosed with osseous union. As you are aware, in this instance, the union at first was only fibrous, and although the uniting medium was evidently becoming firmer as time advanced, there was some lateral motion for some few months. Now the whole limb seems stiff and staunch. The boy was an eminently strumous lad, and the disease a remarkably interesting one, insomuch as there was necrosis of the end of the femur—a piece of bone being nearly detached, and a circumscribed strumous abscess of considerable extent in the head of the tibia. The cartilages of the joint itself were ulcerated, and the synovial membrane in a pulpy condition."

Case 5.—This case occurred in my own practice, and is reported at length in the *Lancet* for September 13th, 1856. The patient was a girl, aged 15, and eminently of a scrofulous disposition of body. She had suffered for five years from disease of the joint. On examining the articular ends of the bones during the operation, the principal disease appeared connected with the osseous structure. One large cavity, containing strumous matter, was situated in the centre of the cut surface of the condyles of the femur, while the head of the tibia was involved by three large caverns filled with cheesy, yellow, tuberculous pus. About an inch of bone was removed from the femur, and three quarters of an inch from the tibia. The cavities were scooped out by the gouge, and thoroughly cleansed, so that before bringing the bones into apposition, a healthy and bleeding surface everywhere existed. The synovial membrane was almost completely destroyed, and the cartilages removed to a great extent.

The accompanying woodcuts, from the able pencil of my friend Dr. Westmacott, admirably exhibit the conditions of the cut surfaces of the femur and tibia. I allude with more

pleasure to these sketches as, I believe, this particular form of disease has not often met with correct delineation, while the frequent adoption of resection for various kinds of disturbance and destruction has necessitated a more defined and practical appreciation of joint affections.

Bony union, the last time I saw this patient, some three weeks since, was not complete. Indeed, I had been somewhat surprised that greater condensation had not taken place at an earlier date; but, knowing what I now do of the subsequent history of similar cases, I am the less disposed to regret this want of osseous repair, and more especially so as the girl possesses a leg in every way useful. Although bony union is not present to the full extent, the limb is as well nourished as its fellow.

I have selected the foregoing cases, because the details are well known to myself. But equally successful, I make but little doubt, have been other cases which have not so immediately fallen under my own notice; and, in referring at some length to these successful instances, it has been my aim to promote a great fact in conservative surgery, and forcibly to recommend a proceeding which very intimately concerns a large class of sufferers. But several questions, with great justice, may be asked. One, perhaps, that would first occur is—Can the whole extent of the disease be removed by this operation? Without doubt it can; and for that purpose it is by no means necessary to take away any great extent of bone.

A moderate slice removed from the articular extremity by means of the saw will, on most occasions, be amply sufficient. A subsequent free use of the gouge and scoop will thoroughly cleanse the cavities of their contents, and, provided the lining

membrane be likewise removed, and a clean bleeding surface obtained, little doubt need be entertained of reparation setting in. Provided the disease be extensive, it may remain a question as to whether sufficient osseous structure still remains to insure bony anchylosis. I have frequently been surprised to find the amount of reparation that will ensue from a comparatively small nucleus of healthy tissue; and I think little doubt need, therefore, exist on this point. Again, it is important to ascertain how far implication of the soft tissues around the joint will interfere with the adoption of this operation. I believe myself that the lesion affecting external parts is seldom so serious as to preclude for a moment the propriety of resection. In the hip, for instance, the soft structures around the joint very frequently appear to be more extensively diseased than the articulation itself, and yet such a state will not deter the Surgeon from proceeding with the operation for the removal of the head of the bone, as it is well known that immediately the primary source of annoyance is removed, the infiltrated and distressed tissues will regain their normal condition. But it is not an easy matter to convince every one of the truth of this assertion. Even the intelligent Boyer feared that such a condition might sometimes preclude the adoption of resection, for in his "Leçons sur les Maladies des Os" he writes:—"The excision of the carious extremities of bones cannot be advised in cases of white or lymphatic swellings, except the affection be confined to the articulating cavities, and does not extend far among the soft parts around the joint. If, for instance, the cellular substance and the ligaments which are about the knee be loaded with lymph, and be so changed in structure as to have become a homogeneous and lardaceous mass, the extirpation of the joint, as proposed by Park, would obviously be impracticable. This bold operation can only be done when the bones alone are affected."

From my own inquiries and observations it would appear that primary union between the cut surfaces of the bones in this disease is generally fibrous and flexible, but ultimately becomes osseous. The details of the foregoing cases prove that such is in reality to be expected. On some consideration this can readily be understood. But such a preparatory termination, if I may use the expression, does not in the least militate against the operation. I again state that I have seen very useful limbs where the bond of union has been principally of a flexible and non-resisting material; but as far as present experience proves, a solid junction is much more to be desired. I cannot myself lean to the somewhat exploded notion, that provided a strumous joint be removed the disease is more prone to be transferred to some neighbouring articulation, or to some internal organ of the body. My individual experience forbids such belief, and I surmise the majority of modern Surgeons incline to the same opinion. Why the nutrition of the limb should not continue after the removal of the destroyed joint, I am at a loss to conceive, for no damage has been inflicted upon the main channels of circulation through the member. Yet it cannot be expected that an extremity which has for some years been pining and wasting away, will, immediately on removal of the cause which has gradually led to such a change, regain the form and vigour of its fellow. Time, however, will enable the affected limb to regain its former health.

Mr. Holt's case, and likewise my own, prove that nutrition will accord to the patient a seemly and well nourished leg; while Mr. Butcher records instances in which this happy result is in general the rule, and not the exception. The existence of one or more small sinuses in the soft tissue communicating with the bone is really of no importance. Unfortunately, when no greater objection to the operation of resection could be raised, this slight blemish has been seized upon, and magnified into a great and important feature.

Many have not scrupled to condemn the operation on account of the length of time that may elapse before the patient can make use of the limb. The patient, and not the Surgeon, however, is the party chiefly interested; and provided no great additional risk is incurred by a somewhat protracted confinement, few, I imagine, a short while afterwards will feel disposed to exchange the advantages they possess—the retention of a useful extremity—for the slight amount of extra time that may have been necessitated for the perfect success of the operation.

Improvement in the subsequent management of the limb has done much to curtail the time that is required for the healing process to take place, so that, not unfrequently, the patient is placed on an equal footing with a less fortunate sufferer, who may have undergone amputation of the thigh.

Most of the cases answering to this special form of disease which have been submitted to this operation have been eminently successful in their results. I think an explanation is without difficulty afforded. The peculiar temperament of the generality of patients suffering from strumous affections of the larger joints is favourable for recovery after operations of magnitude. The age with which these affections are most frequently associated tends likewise to success; while the changes that have taken place in the osseous structure of the extremities of the bones lead to the expectation that no violent inflammation will induce hasty destruction to the bony surfaces and their investing periosteum. Indeed, want rather than excess of action is more likely to create anxiety, and I have seen more than one fatal termination which, probably, would not have resulted had the patients possessed a less strumous and cachectic disposition.

Looking carefully and discriminatively back upon the experience I have enjoyed in treating and watching cases in which the operation of resection has been performed upon this special joint—for it has been my great good fortune to have studied this proceeding on about thirty occasions—I cannot but record my belief in favour of its more frequent adoption; and, perhaps, in no instance is it more beneficially resorted to than in cases answering to the description of circumscribed strumous infiltration of the heads of the two bones forming the joint.

The adoption of resection for what is termed "caries in joints," is due, according to the younger Moreau, to his distinguished father, who suggested the operation as early as 1782, prior to the appearance in France of the translation of Park's celebrated treatise "On Excisions of Carious Joints." A priority of merit, however, must be accorded to our distinguished countryman, who in 1781 practised his first operation, and in the year following detailed to Percival Pott, in a very interesting letter, many excellent considerations regarding this new proceeding. Notwithstanding the great success that has followed the adoption of this operation on numerous occasions, a certain antipathy still proscribes forcibly against its more general acceptance by the Profession; but while regretting the lethargy and unwillingness of many excellent Surgeons to attempt, at least, a trial of its worth, it behoves those more alive to a higher standard of Surgery and usefulness to carry its advantages against present opinions and prejudices.

Green-street, Grosvenor-square.

REMOVAL OF THE TOE-NAIL.

By J. C. WORDSWORTH, Esq.

Assistant-Surgeon to the London Hospital and to the Royal London Ophthalmic Hospital; lately Surgeon to the British Hospital at Smyrna, and on the Staff of the Army in the Crimea.

Of the minor operations of Surgery, few, if any, are more repulsive to the patient, as well as the Surgeon, than the old-fashioned plan of *digging* an eyeball from its socket, or the varied proceedings adopted for removing an offensive toe-nail. To my colleague, Mr. Critchett, the Profession is indebted for the substitution of a comparatively unobjectionable operation—as far as the operator is concerned—for the former exigency; one as free from difficulties as from repulsiveness, and as satisfactory to the patient as any operation can be, which has for its object the removal of a useless and tormenting organ.

What can be more horrifying to a man endowed with common sympathy, than to see a nail dragged upwards to its roots? The agony inflicted, the violence to the subjacent structures, the hæmorrhage, and subsequent suffering, all demand some more tolerable procedure. Hence, some have proposed amputation even, rather than practise the ordinary operation, or have dissected away the ungual matrix, or removed the nail by caustic; and in a case of incurved toe-nail, I have witnessed the summary proceeding of cutting away the offending nail with a portion of the soft parts from the end of the toe, at once an effective and comparatively painless course. In cases in which the nail has become detached at the matrix, it is well known that when necessary it may easily be tilted forwards, producing comparatively little suffering, laceration,

or bleeding, and no glandular sympathy. For some years I have endeavoured to imitate this proceeding in the evulsion of the nail, on account of intractable ulcers or in-growing margin, by the following method:—If only part of the nail required to be removed, as for incurvation, I have divided it by the point of a knife, and carefully passing one blade of a strong pair of dressing forceps under the nail, to the extent of one-third to one-half of an inch, and then firmly grasping it with the forceps, I have succeeded in dislodging it easily by a sudden jerk forwards and upwards.

Some years ago, the Senior Dispenser at the London Hospital consulted me on account of incurved great toe-nail. He had for some time cut away the margin of the nail till a fungus arose. He then allowed the nail to grow, and thinned it by scraping, so as to allow of its edge being raised by small compresses. This he found so painful that he was obliged to abandon the plan. I advised the hardening of the cuticle, by applying nitrate of silver, and allowing it to dry. This relieved him for some time; but the nail continuing to grow, buried itself in the soft parts at the extremity of the toe, and produced such pain, that I recommended him to have it removed. While under the influence of chloroform, I took away the piece in the mode above detailed. No irritation followed, and in a few days he resumed his active duties in the Dispensary. I believe he has had no further trouble from it.

For the purpose of removing the entire nail, I have had a pair of forceps made by Messrs. Weiss, resembling a strong tooth forceps in general outline, but the jaws slightly curved and roughened; the lower sharp at the point, and nail-shaped, concavo-convex; the upper concave, to enable them accurately to seize a nail. By means of them I have succeeded in taking away nails without much difficulty. It is necessary to use considerable force, and unless the forceps are carefully made, they easily slip. In several instances the patients have been enabled to walk about within a day or two of the operation. One walked home from the Hospital, a distance of half a mile, immediately he recovered from the effects of the chloroform.

Some years ago I was consulted by a pupil of Dr. Jackson of Barnsley, on account of in-growing great toe-nail, which was causing very great inconvenience, and had resisted the usual treatment. I advised the evulsion of the nail, and an instrument was extemporised for the occasion by a smith in the town; a common pair of bell-hanger's pliers was adapted to the purpose by beating out the jaws to a sharp edge, so as to enable it to be passed under the nail. The patient was placed under the influence of chloroform, and the nail removed as easily as the imperfection of the forceps permitted, for, in the absence of teeth, the instrument slipped once or twice. Little inconvenience resulted from the injury inflicted, and he made a rapid recovery. On one occasion I operated on a patient without the anæsthetic, as he was unwilling to take chloroform; the man said that the pain was not so severe as to induce him on another occasion to shrink from his determination, and was far less than he had been led to expect.

In the majority of the cases of inverted margin, which have fallen to my care, I have lately adopted the plan of complete evulsion, and found the recovery more rapid, and with less tendency to relapse, than when only part of the nail had been removed; for under the latter circumstances, the parts often granulate above the surface, and produce the original fungus anew. But by removing the whole nail, no unequal support occurs; the nail is reproduced on a better type, and the raw surface can be hardened by nitrate of silver to form quite an artificial nail, and enable the patient to walk without inconvenience.

41, Finsbury-square.

Adulteration of Portuguese Wax.—A letter from Lisbon, published in the *Annales du Commerce Extérieur*, states that the province of Angola, one of the most fertile possessions of Portugal, annually furnishes to Europe 1,500,000 arobas (about 700,000 kilogrammes) of virgin wax, which is sent to Lisbon. The last arrival of this article having been found to be adulterated with some substance, in order to add to its weight, and thus defraud the purchaser in the proportion of one-fifth, or even more, the Portguese Government has appointed a commission specially to examine into this affair.

THE LONDON

PRACTICE OF MEDICINE AND SURGERY.

STATISTICAL REPORT OF THE PRINCIPAL OPERATIONS PERFORMED DURING THE SECOND QUARTER OF 1857.

The subjoined report includes as usual the following Hospitals:—University College, King's College, St. Bartholomew's, St. George's, Guy's, St. Thomas's, the London, the Middlesex, the Westminster, Charing-cross, St. Mary's, the Metropolitan Free, the Marylebone, the Hospital for Sick Children, and the Dreadnought Seaman's Hospital.

LITHOTOMY.

Number of cases, 13; recovered, 10; under treatment, 1; died, 2.

Case 1.—The Royal Infirmary for Children: Mr. Forster.—A boy, aged 3, in good health. A lithic-acid stone, weighing twelve grains, was removed by the usual operation. Recovery. *Case* 2.—Guy's: Mr. Hilton.—A boy, aged 5, in good health. Stone the size of a bean. Recovered. *Case* 3.—St. Bartholomew's: Mr. Lawrence.—A man, aged 49, in fair health. A large calculus was removed by the usual operation. Recovered. *Case* 4.—King's College: Mr. Fergusson.—A boy, aged 6, in fair health. The usual operation was performed. On the following day he almost died of hæmorrhage, which was only arrested by plugging and the application of ice. He ultimately recovered well. *Case* 5.—St. George's: Mr. Pollock.—A boy, in fair health. A large mulberry-stone was removed with some little difficulty, on account of its size. Recovered. *Case* 6.—The London: Mr. Critchett.—A boy, aged 8, in good health. The usual operation was performed, and he recovered well. *Case* 7.—Guy's: Mr. Cock.—A boy, aged 4, in good health. The usual operation. Recovery. *Case* 8.—Guy's: Mr. Cock.—A man, aged 24, very ill, and presenting all the symptoms of calculus in the kidney. He had suffered from stone for nearly three years, and the symptoms were very severe. The median line operation was performed, and one large and many small calculi were removed. The stones had been encysted in a sort of bag in the posterior part of the prostate. Since the operation the man has recovered well, but the wound remains fistulous, and will probably do so. The symptoms of calculus in the kidney still exist, and there is a large tumour in the right loin. *Case* 9.—King's College: Mr. Fergusson.—A man, aged 56, in fair health. The usual operation was performed, and a large stone removed. Sloughing of the scrotum followed, and the man died two weeks after the operation. *Case* 10.—King's College: Mr. Fergusson.—A boy, aged 6, in good health. Symptoms of three years' duration. The usual operation was performed. Recovered. *Case* 11.—King's College: Mr. Fergusson.—A healthy boy, aged 6. A mulberry calculus was removed. Recovered. *Case* 12.—St. Mary's: Mr. Walton.—A healthy lad, aged 6. The usual operation was performed, and a stone, the size of a nutmeg, was removed. He did well up to the third day, when symptoms of peritonitis set in and carried him off in the course of twenty-four hours. *Case* 13.—University College: Mr. Erichsen.—A boy, aged 10, pale and anæmic. Some difficulty was encountered in reaching the bladder, owing to the staff having entered into a false passage. The boy was very ill on the following day, symptoms of peritonitis and pneumonia developed themselves, and he died on the fifth day.

LITHOTRITY.

One of the cases in St. George's previously mentioned remains under treatment.

Case 1.—Guy's: Mr. Cock.—A man, aged 42, in miserably ill health, was admitted, having suffered from symptoms of stone for many years. His urine dribbled away from him, and was coagulable and very fetid. His condition was such that it was deemed that he could have no chance of recovery if lithotomy were performed, and accordingly, as the pain caused by the stone was very great, Mr. Cock decided to use the lithotrite. In the latter part of May the first crushing was performed, a stone which lay close to the neck of the bladder being easily seized and broken up. The operation

was repeated after a few days, and much detritus came away. He experienced relief rather than otherwise from the operations, but sank into a very feeble state, and died about twelve days after the last. At the autopsy a large stone was found unbroken in the bladder, the one which had been crushed having come wholly away. The kidneys were much disorganised, both by old and by recent inflammation.

AMPUTATIONS.

Number of cases, 39; recovered, 26; under treatment, 3; died, 10.

Of the Thigh.—Case 1.—University College: Mr. Erichsen.—A boy, aged 4½, reduced to a state of hectic and great debility by acute strumous disorganisation of the knee-joint. Recovery, with already great improvement to the general health. *Case* 2.—University College: Mr. Thompson.—A girl, aged 10, in fair health, the subject of strumous disease of the knee-joint. Amputation. Recovery. *Case* 3.—St. Mary's: Mr. Walton.—A man, aged 20, in failing health, under care on account of old standing disease of the knee-joint. There were numerous sinuses and partial anchylosis. Amputation. Recovery. *Case* 4.—St. George's: Mr. Tatum.—A boy, aged 9, under care on account of scrofulous disease of the knee-joint. Amputation. Recovery. *Case* 5.—St. George's: Mr. Johnson.—A man, aged 36, under care on account of diseased knee-joint, with sinuses, and much reduced in health. Amputation. Recovery. *Case* 6.—St. George's: Mr. Tatum.—A man, aged 34. Amputation, on account of gangrene of the leg, after ligature of the femoral artery for popliteal aneurism. The gangrene had spread rapidly. Amputation. Recovery. *Case* 7.—The Westminster: Mr. Holthouse.—A man, aged 25, in poor health, under care on account of scrofulous disorganisation of the knee-joint, with dislocation, and numerous sinuses. Amputation. Recovery. *Case* 8.—The Dreadnought: Mr. Tudor.—A man, aged 24, under care on account of diseased knee-joint. Amputation. Recovery. *Case* 9.—The Dreadnought: Mr. Tudor.—A man, aged 21, secondary amputation four months after a compound fracture of the leg, on account of diffuse suppuration and typhoid symptoms. Recovery. *Case* 10.—King's College: Mr. Partridge.—A man, aged 56. Amputation, on account of progressive gangrene after the compression treatment of a popliteal aneurism. No line of demarcation had formed. The man did well after the amputation, and made a good recovery. *Case* 11.—Guy's: Mr. Cock.—A man, aged 20, in poor health, under care on account of a tumour of doubtful nature in the head of the tibia, of one year's duration. Amputation through the thigh. Recovery. *Case* 12.—Guy's: Mr. Cock.—A man, aged 18, in good health. Amputation, on account of osteo-sarcoma of the fibula. The tumour was very large indeed, but was stated to have been noticed little more than six months. After removal, the tumour was found to consist of cartilage and bone. The man recovered well. *Case* 12.—The London: Mr. Adams.—A man, aged 68, in very bad health, from the effects of diseased knee-joint of a year's duration. Amputation was performed, as a last resource, at his own urgent desire. Doing well. *Case* 13.—King's College: Mr. Partridge.—A woman, aged 23, under care on account of diseased knee-joint. She had been admitted into the Hospital for supposed malignant disease of the tibia. The tumour, however, proved to be an abscess, and required opening. The suppuration which followed was excessive, and her health became greatly reduced. Amputation was now performed, and during the first day she seemed to be doing fairly. Afterwards, however, she sank again, and death took place on the fourth day. The examination showed complete disorganisation of the joint. *Case* 14.—St. Mary's: Mr. Ure.—A labourer, aged 45, admitted on account of compound fracture of the tibia and fibula, involving the knee-joint, also dislocation with fracture of the ankle-joint. The injuries had been caused by a railway engine. Primary amputation. Death. *Case* 15.—King's College: Mr. Fergusson.—A man, aged 39, in fair health, the subject of old standing disease of the knee-joint. Mr. Fergusson performed resection of the joint, but found such extensive disease that he determined at once to remove the limb. The flap was cut from the calf, thus converting a resection into an amputation at the knee-joint. There was some oozing from the stump during the night, which was arrested by pressure. Stimulants were freely used. On the fourth day he had a rigor, and on the sixth day complained of pain in the right elbow-joint. On the fourteenth day the ligature came away from the popliteal, and some hæmorrhage followed, necessitating the opening out of the stump, and resecuring of the vessel. In spite of the free use of quinine and stimuli, he sank and died on the seventeenth day. At the autopsy the periosteum was found stripped from the front of the femur. The femoral vein was plugged and filled with pus. Miliary tubercles in the apices of the lungs. *Case* 16.—University College: Mr. Erichsen.—A man, aged 56, a brewer's drayman, was admitted with a compound fracture of the tibia. An attempt was made to save the limb, but very profuse suppuration followed, and his health gave way. The thigh was accordingly amputated six days after the accident. The man continued very ill afterwards, and the stump became sloughy. Death took place on the eighth day. *Case* 17.—University College: Mr. Erichsen.—A man, aged 55, very stout and robust. Amputation was performed on account of a traumatic aneurism of the posterior tibial artery, caused by a fracture of the fibula. The accident had happened six weeks before the operation. He never rallied from the shock of the amputation, and died on the second day. At the autopsy the heart was found large and flabby, but all the other organs were healthy. *Case* 18.—St. Mary's: Mr. Coulson.—A man, aged 45, in poor health. Amputation on account of diseased knee-joint, with large ulcers and sinuses. Death.

Of the Leg.—Case 19.—St. Mary's: Mr. Lane.—A man, aged 33. Amputation in the lower third of the leg, on account of diseased tarsus. An operation had previously been performed for the removal of diseased cuboid bone, but the other bones and joints had become involved. Amputation. Recovery. *Case* 20.—St. Mary's: Mr. Lane.—A woman, aged 60. Amputation in the lower third, on account of diseased tarsus. In this case also bone had been removed by gouging, etc., on a previous occasion, but the disease had since spread to others. Two attacks of secondary hæmorrhage from the posterior tibial followed the amputation. Recovered. *Case* 21.—St. Mary's: Mr. Lane.—A boy, aged 11. Amputation on account of long-standing caries of the tarsus. Recovery. *Case* 22.—Westminster: Mr. Holthouse.—A healthy woman, aged 45. Admitted on account of compound comminuted fracture of both bones of the leg. Primary amputation in upper third. Some sloughing followed. Recovery. *Case* 23.—St. Bartholomew's: Mr. Lloyd.—A lad, aged 17, in good health. Primary amputation on account of compound dislocation at the ankle-joint. Recovery. *Case* 24.—King's College: Mr. Partridge.—A woman, aged 36. Amputation on account of ulcerated and contracted limb after phlegmonous erysipelas eighteen months before. The tendons had sloughed. The limb was useless, and her health was failing. Amputation. Recovery. *Case* 25.—St. Bartholomew's: Mr. Lawrence.—A delicate and phthisical man, aged 22. Amputation on account of diseased tarsus, of six months' duration. Recovery, and much improvement in general health. *Case* 26.—St. Bartholomew's: Mr. Lawrence.—A boy, aged 12. Amputation of the leg on account of an ununited fracture, of five years' duration. Recovery. *Case* 27.—Guy's: Mr. Cock.—A lad, aged 19, of strumous habit, and in poor health. Amputation on account of diseased ankle-joint. Recovery.

Of the Foot.—Case 27.—University College: Mr. Erichsen.—A girl, aged 17, in good general health. Amputation at the ankle-joint, on account of diseased tarsus. Recovery. *Case* 28.—The Dreadnought: Mr. Tudor.—A Swede, aged 18. Amputation of the foot by Pirogoff's method, on account of scrofulous disease of the tarsus. The posterior two-thirds of the os calcis were sound. The lad recovered, and a good stump was obtained.

Of the Upper Extremity.—Case 29.—St. Bartholomew's: Mr. Lloyd.—A very cachectic man, aged 34, under care on account of diseased humerus, with paralysis and an œdematous state of the whole extremity. Amputation in the upper third of the arm. Recovery. *Case* 30.—St. Mary's: Mr. Spencer Smith.—A middle-aged woman, admitted on account of compound comminuted fracture of the radius, with extensive laceration. Primary amputation. Doing well. *Case* 31.—King's College: Mr. Partridge.—A woman, aged 50, under care on account of disease of the wrist. Some weeks before admission, she had fractured her radius near the wrist, and but partial union had resulted. A large bursal swelling existed in the palm, containing melon-seed-like bodies. This was emptied by a free incision, and subsequently destructive inflammation of the wrist-joint took place. Amputation.

Recovery. The wrist-joint was found to be quite disorganised. *Case* 32.—The London: Mr. Critchett.—A man, aged 29, in fair health. Amputation through the forearm, on account of disorganization of the wrist, after an injury received eight months before. Complete anchylosis had taken place. Recovered. *Case* 33.—St. George's: Mr. Tatum.—A girl, aged 19, admitted on account of severe laceration of the forearm and elbow, from having been caught in a threshing-machine. Primary amputation. Recovery. *Case* 34.—The Dreadnought: Mr. Tudor.—A boy, aged 15. Primary amputation at the shoulder-joint, on account of compound fracture. Recovery. *Case* 35.—The Dreadnought: Mr. Tudor.—A lad, aged 16. Primary amputation through the forearm, on account of compound fracture. Recovery. *Case* 36.—St. George's: Mr. Tatum.—A man, aged 62, under care on account of destructive disease of the wrist-joint. Amputation through the forearm. Recovery. The whole carpus was found quite disorganised. *Case* 37.—St. Bartholomew's: Mr. Stanley.—A woman, aged 44, under care on account of phlegmonous erysipelas of the forearm. The parts having been disorganised, and her health failing, amputation appeared to afford her the only chance of life. Two hours after the operation, oozing of blood from the stump was noticed. It was opened, and the medullary canal of the bone was plugged with wax, a measure which proved efficient. Notwithstanding the free use of stimulants, the woman, however, gradually sank, and death took place twenty hours after the operation. *Case* 38.—University College: Mr. Quain.—A man, aged 29, in good health. The arm had been torn away just above the elbow by machinery, and the humerus had been splintered to the extent of five or six inches. Primary amputation. All did well up to the twelfth day, when the patient left his bed, and walked to the door. He had afterwards several severe rigors, and passed into a state characteristic of pyæmia. Death took place ten days after the first rigor. *Case* 39.—Guy's: Mr. Hilton.—A man, aged 50, admitted with a compound fracture of the arm, the result of a railway accident; he had also sustained a fracture of ribs. Primary amputation at the shoulder-joint. He never rallied well, and died on the following day. *Case* 40.—The Westminster: Mr. Holthouse.—A man, aged 49, an omnibus driver. In a fall from his box he sustained a dislocation of his shoulder, a compound fracture of the humerus, and a compound dislocation of the elbow. Much venous hæmorrhage had resulted, and there was considerable swelling of the whole arm. An attempt was made to save the limb, but gangrene followed, and amputation, as a last resource, became necessary on the seventh day. The limb was removed at the shoulder-joint, with but little loss of blood, and he rallied fairly afterwards. In the course of the night, however, he again sank, and death took place a little after five on the following morning.

HOSPITAL NOTES.

HYSTERIC TYMPANITIS OF THE ABDOMEN. DIFFICULT DIAGNOSIS.

Dr. Ramskill has at present under his care, in the Metropolitan Free Hospital, a young girl of 17, whose case offers some very interesting features in respect to the diagnosis of abdominal tumours. Her abdomen presents pretty exactly the appearance of a seven months' pregnancy, and her father even went to the length of turning her out of his house on the supposition that such was her condition. She applied to several Medical men, and very different opinions were expressed. On admission it was found that the abdomen, although round and full, was of clear percussion note in every part, that the umbilicus was depressed instead of protruding, and that no tumour whatever could be felt. On vaginal examination the uterus was found small, and its cervix of due length. Respecting the absence of any tumour in the abdomen, some caution must be exercised in giving an opinion, as she invariably holds the muscles so tense and board-like that pressure cannot be made with any satisfactory results. At times the abdomen will appear to be larger on one side than the other, and the external *contour* of a large ovarian cyst is very exactly simulated; but then there always remains the clear percussion note, which is inconsistent with such a supposition. The patient has now been carefully watched for nearly three months, and various medicines, purgatives, nux vomica, etc., have been given, but without any apparent result. The girl complains of much pain at times, but retains a fair degree of general health. The abdomen continues to increase in size. The case has been carefully considered in consultation with Dr. Ramskill by Dr. Barnes and Mr. Hutchinson, and the opinion entertained is that it will prove to be one of mere hysteric tympanitis, there being in reality no tumour whatever. It is a case, however, in which, if occurring in private practice, such an opinion could not be given without some hesitation.

Another interesting abdominal case occupies the next bed to the above patient. A woman, aged 28, also under Dr. Ramskill's care, presents the condition of an enormous ovarian cyst, by the pressure of which the uterus has been completely extruded and partially everted. Paracentesis has been twice performed, and will probably be repeated.

TUMOUR IN THE ABDOMEN, OF DOUBTFUL NATURE.

Apropos of the above case, and as a further illustration of the interesting subject of abdominal tumours, we may mention a case now in President Ward, St. Bartholomew's, under Mr. Lloyd's care. Selina J., aged 33, is an unmarried woman in fair health, in whom the menstrual function has always been regular. In the left lateral region of the abdomen is a mass which feels as if about the size of a large fist, but flattened; it is solid and somewhat irregular on its surface, and is movable within a certain radius. It reaches above to nearly the level of the umbilicus, and below to about the crest of the ilium, not passing down into the iliac fossa. There is, however, no clear percussion note to be elicited below it. It is quite superficial and easily felt. Handling it occasions no pain. As to history, she states that she first became aware of the presence of a tumour more than two years ago, but that it gave her no inconvenience, and she did not pay much attention to it until about two months ago, when it rather suddenly began to increase. Lately she has had much pain in the thigh and hip while sitting or standing. Among the diagnoses which have been suggested are those of a solid ovarian tumour, of a pedunculated fibrous tumour of the uterus, and of a growth in the omentum. It has also been suggested that it may possibly be a solid intracystic growth, occupying an ovarian cyst. The more cautious who have seen the case have, however, abstained from giving any opinion.

SEVERAL LARGE MOVABLE TUMOURS IN THE ABDOMEN—PROBABLY MALIGNANT DISEASE OF THE OMENTUM.

We may continue the subject of tumours of the abdomen above referred to by stating also the case of a very stout, elderly woman, now attending Mr. Hutchinson's out-patient room at the Metropolitan Free Hospital. The abdomen is very capacious indeed, and its parietes loaded with fat. She was sent to the Hospital by a Surgeon who had attended her, and who had discovered the existence of several tumours. These tumours, which are three or four in number, vary in size, as far as has been ascertained by the hand, from a closed fist to a child's head. One of them, which occupies the middle region of the abdomen, is quite superficial, and easily felt, and moves about readily under pressure. A second is felt a little to the left of the umbilicus; and a third, much the longest of the three, is only to be discovered by deep pressure. The last is, however, like the others, somewhat moveable. They all feel firm and solid, and are somewhat nodulated on their surfaces. The woman states that she first discovered them about six months ago, and that they have caused her much pain, and are growing rapidly. She has lost much flesh since they began to form. Taking these facts into consideration, Mr. Hutchinson has given the diagnosis of malignant growths in the omentum and mesentery, believing that the deeper placed and more fixed mass is probably in the latter. Pedunculated fibrous tumours of the uterus is almost the only other diagnosis which could be suggested, and their averred growth and painfulness are inconsistent with such an opinion. If malignant, the result of the case will in all probability afford an opportunity for confirming the view entertained before long.

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Medical Times & Gazette.

SATURDAY, SEPTEMBER 19.

MODERN THERAPEUTICS.

The great aim and end of Medical Science is to cure disease. The investigations of Anatomy, the researches of Physiology, the exploration of medicinal agents in the domain of Natural History, all tend to the one great object, the alleviation of suffering and of pain. The pathologist and the morbid anatomist may discover the causes which poison the fluids or disarrange the solid textures of the body; but their science is of little value in the eyes of the public, unless they also devise remedies for the restoration of the affected parts to a healthy state. Mankind, in all ranks and in all countries, will naturally fly for succour in the hour of sickness and infirmity to him who possesses the power, or to him who pretends to possess it, of most effectually curing human maladies. One pretender affects to cure all his patients by drastic pills of gamboge and colocynth; another cures or kills them with lobelia and cayenne pepper; a third set of quacks allow the sick to perish, while they amuse them by the administration of inert and useless globules; a fourth sluice their victims with hot and cold water, and if they escape from death, their cases are called cures. The newspapers teem with advertisements in praise of Dr. Lohock's infallible tincture, of Widow Wench's wonderful pills, of Professor Belloway's miraculous ointment, of Dr. Broadway's inestimable balsam; and the public buys the tincture, and the pills, and the balsam, and the ointment, and the Government derives a large revenue from the stamps, and the cunning people behind the scenes who compound the medicines pocket immense incomes, while they laugh in their sleeve at the folly and credulity of their dupes.

But, putting out of the question the pretensions of quackery, it is indisputable that the records of legitimate Medicine, so far as treatment is concerned, contain such a heterogeneous assemblage of different and often conflicting views, as to give rise in some quarters to the conclusion, which is not unnatural, that the principles of Medicine are really unsettled, and that the art itself is purely an arbitrary one, depending on the caprice of the practitioner.

Still, those who draw such hasty inferences from imperfect data should be informed that Medicine, in its very nature, cannot be regarded as a mathematical science; for the circumstances are so continually changed by a host of modifying influences, that the results must necessarily be as various as the conditions which give rise to them. Passing from the abstract to the concrete, it is evident that the same disease affecting a delicate child, a nervous female, or a robust man must require very different treatment; and it is equally demonstrable that the same disease occurring in different climates and at different periods will likewise necessitate a corresponding variety of therapeutical ministrations.

The period is not very far distant when the doctrines of the distinguished John Abernethy prevailed throughout the Profession, and when it was assumed that nearly all diseases could be cured by blue pills and the black draught; and the influence of these doctrines still prevails in the minds of several practitioners of the present day. But while we allege that the precepts of the great Surgeon of St. Bartholomew's were carried too far by the practice of his over-zealous disciples, yet we cannot for a moment withhold the tribute of our admiration for the man who, by a bold effort of genius, heightened and even recommended by a certain eccentricity of conduct and manner, rescued Surgery from a mere mechanical art, and caused it to become one of the noblest of sciences; teaching that the Surgeon who saved a limb was entitled to far higher praise than he who removed it, whatever may have been the degree of dexterity displayed in the operation.

About the same period, when Abernethy was inculcating the necessity of the constitutional treatment of local diseases, the treatment of fevers consisted in the early and copious abstraction of blood, by which, as it was taught, and as indeed experience then proved, that class of diseases was most speedily and effectually removed or relieved. Mercurials and purgatives were used in such cases as adjuncts to venesection, and the patients not only bore the treatment, but attributed their cures to its prompt and unsparing adoption.

In the whole class of inflammatory and congestive diseases, bleeding was of course the sheet anchor, and calomel, in prodigious quantities, was thrown into the system, with the effect of causing profuse salivation, but, at the same time, as it appeared, of subduing the inflammatory diathesis. We ourselves, and many others, in our early days, practised this treatment under the directions of our seniors, and we cannot affirm with truth that the practice was unsuccessful, or that it appeared unjustifiable by the results. Subsequent observation and experience, however, have shown that such active treatment in the present day is unnecessary, if not injurious; and that even inflammatory diseases may be and are often cured without either bleeding or mercury.

It may probably be said that our predecessors mistook the nature of diseases, and that the present generation is gifted with greater enlightenment than their forefathers; that the diseases which now exhibit themselves to our notice are essentially the same as those which prevailed at the beginning of the nineteenth century; and that, therefore, all that our ancestors did was wrong, and all that we and some of our contemporaries do is right.

But before arriving at so sweeping a conclusion it is only fair to inquire, as a mere matter of speculation, whether the circumstances which cause or cure diseases have not altered within the last fifty years; whether certain types of disease have not disappeared and others have occupied their place; and whether new diseases have not sprung up in latter times. The Synocha of Cullen, of the very existence of which some distinguished men of the present day entertain strong doubts, has certainly disappeared from among us, while the Typhoid Fever, so admirably described by Dr. Jenner, is far more frequently observed than was formerly the case. The Asiatic Cholera, with its rapid depression of the system and its speedy extinction of life, is certainly a new type of disease in this country, even if we hesitate to admit that it is actually a new disease; and that Influenza, in its severe form, is a new type of disease, there can be very little doubt. It is probably of equal certainty that while sthenic inflammatory diseases have become comparatively infrequent, neuralgia and other affections characterised by debility have disproportionately increased, and the tendency of fevers of all kinds to run into a low and exhausting form is too notorious a fact to need comment. The

recent prevalence of boils and carbuncles, also manifestly attended with debility, is too striking to escape notice.

The researches of modern science have brought to light the existence of a host of diseases, which, whether they formerly prevailed or not, were certainly not described until of late years. The granular degeneration of the kidneys, and the whole series of fatty degenerations of all the organs of the body, the disease called cirrhosis of the liver, the disease of the supra-renal capsules, giving rise to the phenomenon of bronzed skin,—all these are the discoveries of the present day; and, while we are far from denying that they may have existed in former times, we are, we think, at least warranted in supposing that they are more prevalent now than in previous epochs. The plague has certainly disappeared from this country since the fire of London; the sweating-sickness, which once periodically swept off great numbers of the population, is now equally unknown; small-pox mortality has diminished most strikingly under the influence of vaccination; and, as we have just shown, certain types of disease have faded away, although the diseases themselves may remain; and there is certainly nothing extravagant in the assumption that a new class of diseases may have sprung up to replace those which have disappeared, and that the treatment of the sick may accordingly require modification, in proportion to the variety displayed in the maladies under which they labour.

The habits of the people, more especially of the higher classes, have also materially changed. The time when a man drank his two or three bottles of wine a day, and considered it the height of hospitality to make all his friends do the same, has passed away; and with the disappearance of such habits, gouty affections have proportionally diminished, and the plethoric diathesis, bearing and perhaps demanding strenuous depletion, is comparatively infrequent; but in place of these and similar constitutional maladies, a whole host of depressing agents, in the shape of neuralgia, insanity, influenza, cholera, low fever, fatty degeneration, have sprung up in countless multitudes to threaten human life and to destroy human happiness. The butcher and the wine-merchant might be regarded, at the commencement of the present century, as the great authors of disease and its consequences; but now they are valuable assistants to the Physician in the restoration of health. In a statistical point of view, the consumption of wine, which might be supposed to have diminished, as a result of the altered habits of the people, has largely increased, from its more general use, and from its greatly increased employment as a medicine.

While, too, the luxury and over-indulgence of the middle and higher classes have been curtailed, it may perhaps be said that the comforts of the lower classes have been increased, though not to such an extent as might be wished. Our soldiers and our sailors, except in certain unfortunate instances, which need not be recalled to remembrance, are well fed and well clothed, and epidemic disease has become among those classes comparatively rare; while the condition of the prisoner and the lunatic pauper has been so much improved as to excite the invidious remark, that poverty alone receives far less commiseration at the hands of the State than insanity or crime.

Such being the influences now in operation to alter or modify the habits of the people, and experience having shown us that the type of disease is subject to periodical variations, it cannot cause surprise that modes of Medical treatment must differ at different periods. We throw out the above hints upon a subject which we deem to be of the utmost importance; we offer no dogmatic opinions of our own, but we leave the investigation to the deep attention of the Medical Profession.

THE WEEK.

We beg to direct attention to the letter of our Foreign Correspondent upon the baths of Gastein, in Austria. The water of the baths is very pure and of a high temperature, and contains but little saline matter; nevertheless, they are highly recommended, and appear to be very efficacious in some cases of neuralgia, hysterical paralysis, stiffened limbs, nervous deafness, and amaurosis. Much of this beneficial effect may be due to the picturesque situation and elevation of the spot: but, be the reasons what they may, the baths of Gastein are every year rising into greater repute in the cure of disease, and considerable difficulty is now experienced in obtaining accommodation.

Sir John Hall, the Inspector-General of Hospitals in the East during the whole period of the Russian war, has just published some Observations on the Report of the Sanitary Commissioners in the Crimea during the years 1855 and 1856. Sir John Hall points out in this pamphlet that the Sanitary improvements for which the Commissioners take credit to themselves, were either effected, or were in progress of completion, at the time of the visit of the Commissioners; and he therefore complains that the Medical Department of the Army has been unfairly deprived of the merit which is justly its due. The efficiency of the Army Medical Officers is proved from official documents which are copied in the pamphlet, and which show that in the important matters of lodging the soldiers in camp and in hospital, improving their diet and clothing, promoting cleanliness and sobriety, taking care of the sick and wounded, and guarding against the spread of epidemic and infectious diseases, — in all these points the Inspector-General of Hospitals exercised a vigilant superintendence, and would have achieved still more than was actually accomplished, if he had possessed sufficient authority, and if his recommendations had been carried out by his military superiors. The following quotation from Sir John Hall's pamphlet proves the inconvenience which arises from the want of authority on the part of the Medical officers; and the suggestions made upon this subject will, we hope, meet with due attention at the Horse Guards. "This state of the Hospital huts had arisen from the Commanding Officer of Artillery declining to receive representations from the Superintending Surgeon of Artillery concerning them, unless they came through the several commanding officers of batteries and divisions; and as the Commander-in-Chief, to whom the subject was referred, seemed to think that the duty of the Medical officers consisted in the purely Medical treatment of their patients, and that all other arrangements should be made by or through the military authorities, he viewed any deviation from this routine as an effort of independence on the part of the Medical officers. This doctrine, which is applicable to the regulations of the French army, where the Intendant provides all supplies for the Hospitals, and the Medical officers' duties are confined to those of his Profession, does not hold good with regard to the British, where a totally different system prevails; and so long as the principal Medical officer is held accountable for the condition of the Hospitals both by the Government and the public, it is but fair that he should be allowed to resort to the most direct way of getting defects in them remedied. . . . . So far as independence is concerned, no one can read the Principal Medical Officer's voluminous correspondence during the last war without, I think, coming to the conclusion that it would be for the benefit of the service were he invested with more authority; and had the military authorities been enjoined by regulation to ask his opinion on many points, Special Sanitary Commissioners would not, in all probability, have been con-

sidered necessary, and there would have been no occasion for these remarks."

It is most gratifying to find, from the returns of the Registrar-General, that the Public Health continues in a most satisfactory state, the deaths during the last week being only 1023, which is a lower number than in any of the seven previous weeks, and is below the average weekly mortality during the ten previous years. The long-continued heat of the summer, which is now passing away, has not only been unproductive of disease, but the fruits of the earth have been yielded in unprecedented abundance, in consequence of the almost tropical temperature and the copious rains to which we have been exposed. Not only in this country, but throughout Europe, the same fertility has prevailed, and we hope that this outpouring of the gifts of Nature will be followed by a very material reduction in the price of bread and of food generally. There is now no pretext whatever for maintaining the high prices which have so long prevailed, and which have been the source of unnecessary privation to many an indigent household. It is also gratifying to find that the grape is gradually recovering itself from the disease which has attacked the vines in many countries, thus proving the temporary nature of the epidemic. Wine has become so necessary in the treatment of diseases both of rich and poor, that any scarcity of this article is to be deplored; and the more especially because, when wine is deficient, the dealers manufacture a spurious compound under the name of wine, which does more harm than good to the unfortunate patients.

REVIEWS.

An Elementary Course of Botany, Structural, Physiological, and Systematic. With a Brief Outline of the Geographical and Geological Distribution of Plants. By Arthur Henfrey, F.R.S. L.S. etc. Professor of Botany in King's College, London. Pp. 702. London: 1857.

Like every other department of Natural History, the science of Botany has lately attained gigantic proportions, and its domain is still daily extending. To the Medical student, who is compelled to condense into two or three years the studies which might occupy a life-time, a competent acquaintance with Botany sometimes appears a hopeless achievement; and the three months' summer course, to which lectures on the subject are usually restricted, leaves too often upon the mind only a confused and fragmentary image of a vast and comprehensive theme, the principles of which have occupied the attention of the loftiest minds, and the multiform details of which are coextensive with the limits of the habitable globe. The study of the Vegetable Cell, with its numerous and varied metamorphoses, is the starting point, not only of vegetable, but of animal organization; the functions of circulation and respiration, reduced to their elementary condition in the tissues of plants, offer a complete analogy with the same operations carried on in a more complicated manner in the lungs and blood-vessels of animals; while the study of the reproduction of vegetable forms is a necessary preliminary for the due comprehension of the generative function in the Animal Kingdom. The Classification of Plants, or, in other words, the arrangement of the scattered forms of vegetation into classes and orders, genera and species, affords an ennobling pursuit for those who love to trace the analogies and the differences which characterise natural objects; while the study of the connexion of vegetable forms with climate and elevation above the sea, and the excavation of vegetable remains from the solid rock, constitute, under the names of Botanical Geography and Geology, some of the most fascinating and instructive pursuits of the cultivator of science.

The task of collecting together into a single volume so large a mass of information as is comprehended under the heads just indicated, could not have been intrusted to better hands than those of Mr. Henfrey, the Professor of Botany at King's College, who is one of the most accomplished botanists of the present day, and who, by his original investigations into certain abstruse points of vegetable physiology, has gained for himself a very high position among European philosophers.

In the present volume, the author commences with the Morphology or Comparative Anatomy of Plants, passing from the simpler to the more complicated forms of vegetable organization, and showing the modification which the parts undergo by the plastic influence of life. In the second part, the principles of classification are explained, and the different systems enumerated; and a synopsis of the Natural Orders, arranged upon a plan somewhat similar to that of Lindley, offers a general view of the vegetation of the earth. The third part is devoted to the Physiology of Vegetation, and is, perhaps, the best abstract of this portion of the science which has yet appeared. The fourth part comprises the subjects of Geographical and Geological Botany.

We can most cordially recommend Mr. Henfrey's book on Botany, not only to the Medical Student, but to all the cultivators of science. Such a work, concise but clear, was very much wanted, and Mr. Henfrey has fully supplied the deficiency.

On a New Method of fixing Artificial Teeth. By J. Maurice, Surgeon-Dentist. London: 1857.

The object of this little book is to bring into notice a new material for fixing artificial teeth. After numerous experiments, the author has come to the conclusion that vulcanised India-rubber is the best substance for the purpose. The plan adopted is to cover the fastenings with the vulcanised India-rubber in the form of tubing, drawing it over them in the same manner as a glove covers the fingers. The soft and yielding nature of the material is supposed by the author to prevent the jar and pain sometimes caused by the contact of the metal with the teeth, and to render the fastenings in other respects more tolerable to the feelings of the patient; but we question whether the india-rubber does not produce an unpleasant taste and smell.

A Manual of the Detection of Poisons by Medico-Chemical Analysis. By Dr. Fr. Jul. Otto, Professor of Chemistry in Caroline College, Brunswick. Translated from the German, with Notes and Additions. By William Elderhorst, M.D. Pp. 178. New York: 1857.

Recent events in this and other countries have rendered the detection of poisons a most essential adjunct to the due administration of justice; and we therefore hail with great satisfaction the appearance of any standard book upon the subject of Toxicology. Dr. Elderhorst has done good service to his own countrymen and to British readers in general by translating the excellent Manual of Dr. Otto into English; and the notes he has added bear the marks of careful study and practical investigation. The rules given for detecting poisons are remarkable for their clearness and conciseness, and the book will be studied with advantage by all whose pursuits lead them to inquire into toxicological problems, whether as Medical witnesses, or as administrators of the criminal law.

PROGRESS OF MEDICAL SCIENCE.

Selections from Foreign Journals.

ON THE ABSORPTION OF ABSCESS IN SPINAL DISEASE.

By M. BOUVIER.

The object of M. Bouvier's paper is to show that the sympathetic abscess resulting from disease of the spine is more often cured either by spontaneous absorption or by the aid of art, than is generally supposed. Deep-seated abscess, indeed, may pursue its course and become cured without even its existence having been suspected; and since he has been in the habit of always carefully exploring the iliac fossæ, the author has often met with examples of their unexpected occurrence. As to abscesses that are accessible to sight and touch, it is probable that we should find their resolution oftener take place if they were less hastily opened. Among the circumstances favouring the resorption are the early age

and the robust condition of the patient; while deep-seated abscesses are more likely to be so removed than superficial ones, as in these latter the skin, becoming distended, usually inflames and ulcerates. In large abscesses the resorption is slow and difficult, and thus those which penetrate into the thigh are more rarely so cured than those which are confined to the iliac fossa. The reduction of their size, as recommended by Abernethy, by repeated puncture, much favours the chance of their eventual resorption.

The general treatment of these cases consists in the adoption of the various means of increasing the energy of the vital powers and of nutrition; and when the various means employed have succeeded in removing the primary disease of the bone, the abscesses when not very large will disappear of themselves. When, however, they are large or increasing, we must have also recourse to other means. These means are analogous to those employed when we wish to effect the resorption of fluids effused into the serous or synovial cavities, or into the cellular tissue. They are local and general. The local means consist in the employment of compression or in stimulating the walls of the abscess. Compression can only be used in the limited number of cases in which there is no fear of causing a reflux of the pus towards the deeper parts. Various modes of stimulation have been tried, such as electricity, moxa, blistering, iodine, &c.; the excitement of the more superficial forms of irritation being in general preferable, as less endangering the integrity of the skin. Other means of accelerating absorption consist in the application of saline, sulphureous, or iodureted douches or baths, or merely water itself, applied in the hydrotherapeic manner; but, whatever the means adopted, their effects must be attentively watched, so that their action may be duly regulated, and not extended too far. The general means must in part consist of those employed directly in the osseous affection, with the object of imparting energy to the various organic functions; for, in spite of the apparent contradiction of this fact to certain physiological experiments, the absorption of pathological fluids takes place more actively in proportion as the condition of the general health is improved. It is, therefore, with justice that Abernethy insists upon the employment of general tonics, and a due regulation of the digestive organs. Purgatives are not only useful in this latter point of view, but also, as well as diuretics and sudorifics, as general agents capable of influencing the resorption of the abscess. These means are thus, to some extent, specific, their derivative action tending to induce endosmosis of the vessels of the walls of the abscess, care being taken not to pass beyond the mere destruction of the equilibrium of the secretions, and so on to a disturbance of the regular action of the functions of the economy. Other substances, such as iodine, which seem to possess the power of exciting absorption without increasing the products of secretion, are sometimes useful. In all cases time is an indispensable element; months, or perhaps years, passing before all traces of the abscess disappear. The attempt to obtain absorption should be continued as long as the abscess does not threaten to burst, or some imminent danger does not render opening it imperative. In doubtful cases, we must, following the example of Abernethy, combine the two methods, evacuating the pus once or several times, while employing means that may determine the absorption of any of the pus that still remains or may be reproduced. In this way Guérin has effected cures by combining with subcutaneous puncture medical treatment, and especially the repeated use of Seidlitz water.—*Archives Générales*, tom. ix. pp. 1—22.

ARSENIC IN INTERMITTING FEVER.

By M. FREMY.

M. Frémy in this series of papers gives an account of 316 cases of ague treated at the Military Hospital, Roule, near Paris. Of these 106 were cured by arsenic, not having been subjected to prior treatment; and 158 after quinine had failed. The following are the conclusions he draws:—1. The use of arsenic in ague is of very ancient date; but it was in the seventeenth century that its employment became, so to say, popular in Germany, England, and India. At the present day it is habitually used as a preservative of health by the inhabitants of the Tyrol and the southern provinces of China, where tobacco is always mixed with it. Moreover, most of the mineral waters of high repute, especially those of Vichy, Mont d'Or, Neris, Plombières, etc., contain very notable quantities of arsenic. Thus, when administered with care, it should not be regarded as a hurtful or poisonous substance. 2. Arsenious acid will cure intermittent fever, its influence not only being exerted on the return of the paroxysms, but also on the hypertrophy of the spleen, which it rapidly and certainly reduces to its normal size. 3. The arsenic should be given in doses of 25 milligrammes (a millig. is 1-70th gr.), dissolved in weak white wine and water, or it may be given in doses of from 40 to 80 millig. in glysters. Fowler's solution produces the same effects. 4. Not the slightest symptom of poisoning has been met with; and several patients have borne the increase of the dose to 55 millig., or to 250 in lavements, without inconvenience. 5. The statistics here produced were derived from observations made in the Hospital between June and October, 1855, and corroborate the results of prior observation. 6. It is an error to say that arsenic should be preferred to quinine. It will completely cure cases that have resisted quinine; but it is only preferable to this substance from its great cheapness, which is a point for consideration in country practice, where the poverty of his patients disarms the practitioner. It is well, however, to note that quinine sometimes gives rise to serious symptoms, so that several patients prefer bearing the fever than to go on taking it. 7. The fevers here treated were all old cases, the majority being instances of relapse. 8. The patients who took arsenic soon acquired flesh, and a considerable appetite. They became active, and the skin assumed a rose-colour, and a peculiar freshness of appearance. 9. Arsenious acid seems to have the advantage over quinine, in rendering relapses less frequent and more delayed.—*Moniteur des Hôp.* No. 20.

EXCERPTA MINORA.

Electricity in Suppression of the Lactcal Secretion.—M. Becquerel related an interesting case. M. Aubert had already met with one in which the child ceasing to suckle on account of a pneumonia, the milk had disappeared when it recovered and sought the breast. M. Aubert applied electricity to the breasts, and after four *séances* of twenty minutes each, the secretion was completely re-established. In M. Becquerel's case the supply of milk, after continuing good for six months, suddenly ceased, as a consequence of mental excitement. For more than a week a few drops of milk only had appeared, when magneto-electric currents of moderate force were directed along different parts of the circumference of the organ; and after three *séances* of fifteen minutes each, the secretion was completely restored.—*Gaz. des Hôp.* No. 7.

Iodide of Mercury in Acne.—M. Hardy, of the St. Louis, relates several cases of obstinate acne, to show the great efficacy of the iodide. The following ointment is applied daily: viz. 12 to 15 grains of the proto-iodide of mercury, or 2 to 4 grains of the bi-iodide to an ounce of lard. A temporary increase of irritation is followed by progressive amelioration, and even very bad cases yield after from one to three months' treatment. When the indurated form of acne is predominant, and the skin and cellular tissue are greatly hypertrophied, equal parts of the bi-iodide and of lard may be applied every ten days, from four to eight applications usually sufficing. The great pain that attends the application of this last, and which continues for some hours, should, whenever possible, determine us to employ only the weaker ointment.—*Moniteur des Hôp.* No. 51.

Plugging the Vagina.—Mr. Casey states that he has often employed the following mode of plugging with great advantage:—A towel is to be twice doubled or folded lengthwise, and then rolled up tightly, until it is made into a small, firm roll or cylinder, 8 or 10 inches long. This is rolled up within a second towel, spread out to its full length, thus forming a roll of about a yard in length, its central portion being a thick, firm cushion; its central part is applied against the vulva, one end being brought up in front, and the other behind, between the nates; both ends are then tightly drawn up and pinned to a third towel, which is passed across the shoulders, or attached to the nightdress.—*Boston Journal*, vol. lvi. p. 134.

Iodide of Potassium in Stricture.—Dr. Thielmann has during the last thirteen years treated his cases of organic stricture with the iodide of potassium, in place of employing instruments. In the Peter-Paul Hospital, Petersburg, twenty-seven cases, exhibiting different degrees of the affection, have been so treated. The duration of the stricture had varied from eight months to two years, the majority still admitting of the

passage of from No. 2 to No. 1 bougie. A tablespoonful of the solution (iod. potass. ʒij. ad ʒvj.) was given three times a-day, a milk and farinaceous diet being observed meanwhile. Discharge from the urethra takes place in a few days, or increases if already present; and with this, gradual improvement in the condition of the stricture. The duration of treatment varies, according to the degree of stricture, from two to eight weeks; but if the iodide produced no ill effects, it was continued yet longer. When the induration of the stricture could be felt externally, the iodide was also employed as an ointment.—*Berlin Med. Zeitung*, No. 24.

Paracentesis Thoracis in pleuritic effusion.—Dr. Bowditch has published additional cases in proof of the great value of this practice, which should not be employed merely as a last resource. Since 1850 he has operated in 62 cases, of both sexes and at all ages, having punctured 111 times, and he knows nothing in practical medicine so satisfactory as the results. He employs an exploratory trocar. The puncture causes little pain, never does harm, always gives temporary or permanent relief, and is often the chief, or even the sole, means of affording relief or of saving life.—*Boston Journal*, vol. lvi. p. 349.

Collodion in Erysipelas.—Dr. Baumann employs collodion in all cases, and has found it, even in several cases of erysipelas of the face, and in one case of phlegmonous erysipelas of the thigh, highly useful. He first gives an emetic, and then daily applies the collodion to the parts. The recovery is rapid, and no ill consequences have been observed.—*Schmidt's Jahrb., June*, p. 286.

Oil of Naphtha in Ringworm (teigne faveuse).—Dr. Chapelle says he has found the following proceedure the most successful of any that he has tried:—The hairs are to be cut short, the creamy fluid let out of the pustules, and the crusts removed by linseed poultices. The denuded surface is then to be covered with a thin layer of oil of naphtha, over which a flannel compress is to be placed, the whole being secured by an oil-silk cap. The application is to be renewed twice a day, first well washing the parts with soap and water; and the surface of the scalp is to be carefully searched, in order to detect any small favous pustules that may have appeared. These must be pricked with a pin, the matter removed, and the surface covered with the oil. This evolution of pustules is successive, so that the hair must be kept short in the vicinity, that their advent may be watched. This application secures the rapid abortion of the pustules; but when her scalp is too tender to bear it, it should be mixed with other less irritating oils, of which the *huile de cade* (empyreumatic oil of juniper), is one of the best.—*Gaz. des Hôp.* No. 81.

The Needle Mania.—The Rochester Union publishes the case of a young lady who thrust an immense number of needles and pins into her flesh, which were subsequently extracted. The numbers extracted amounted to 297 needles, 67 pins, 2 darning-needles, 5 hair-pins, 5 knitting needles, and 5 pieces of wire; total, 383.—*Boston Journal*, vol. lvi. p. 107.

FOREIGN CORRESPONDENCE.

AUSTRIA.

GASTEIN, September 3, 1857.

THIS bathing-place, though in great repute on the Continent, is very little known in England; some account of it may be acceptable, therefore, to the readers of the *Medical Times and Gazette*. Dr. E. Lee gives a short chapter about it in his last edition, and I believe also that there is an amusing description of it in Dr. Granville's "Spas of Germany," but, with these exceptions, I know of no English author who has written on it; and an English officer now here tells me that before leaving London he consulted a Physician in very large practice, who had never even heard of the place. I may say then that it is one of the *highest* watering-places in Europe, being 3420 feet above the level of the sea. It is about eighty miles from Salzbourg (thirteen hours by the mail), and is on the confines of Styria and the Tyrol. The situation is most picturesque, the few houses of the place being grouped in the form of an amphitheatre at the end of a valley, on each side of an immense waterfall, one of the finest in Europe, formed by the river Aache bursting through a rocky channel in its passage from a higher valley into the valley of Gastein. But the chief attractions of the place are the springs of warm water, which have long enjoyed a fabulous reputation throughout Germany, in cases of paralysis, nervous debility of various kinds, and chronic rheumatism. They were known to the Roman Paracelsus,—that strange compound of Physician, quack, alchemist, magician, and astrologer—who revived their reputation in the sixteenth century, and attributed their action to arsenic, which he supposed they held in solution because there are mines of gold, silver, and arsenic in the neighbouring mountains, and a lake some five or six miles off contained then, as it does now, so much mineral matter in solution, that fish cannot live in it and cattle cannot drink it. However, modern chemistry has proved that the water from the warm springs contains no arsenic, and indeed that, chemically speaking, it is little more than warm distilled water. There are several springs on the right bank of the river, one on the left, and one that bursts forth in the middle of the cascade. In chemical composition they are identical, but they differ in temperature. The highest is 120° Fahr., the lowest 95°. The water issues from deep clefts in the solid gneiss. It is beautifully clear, and without taste or odour. If exposed to the air for some days it undergoes no apparent alteration, and deposits no sediment. The few trials that I have made of the specific gravity show that it varies from 990 to 1000 at temperatures from 105° to 70°. At 60° it is very slightly heavier than distilled water. The analysis of Tromsdorf shows that a pint contains only from three to four grains of solid matter, consisting principally of sulphate of soda, with a little carbonate of soda, chloride of sodium, sulphate and carbonate of lime, and chloride of calcium. It is very clear, therefore, that any properties possessed by the water are not due to its chemical composition, and those who will not admit that temperature alone is sufficient to account for its effects, talk about the *magnetic condition of the water*, and assert that it causes a divergence of the magnetic needle to the extent of some sixty or seventy degrees, while distilled water at the same temperature only affects it to the extent of five or ten degrees. The manner in which this is shown is rather amusing. An homœopathic doctor here, Dr. Pröll, has an electro-magnetic induction apparatus arranged with a delicate needle suspended over a graduated circle, beneath which is the coil. Of course when a current is sent through the coil, however the current may be generated, the needle diverges from the pole. If the current be strong, the needle forms a right angle with the current; if weak, the divergence from the pole is slight. The current is generated by filling a glass with water, immersing a cell of zinc and a piece of silver in the water, and connecting the two metals with the coil in the usual manner. Distilled water causing very little action, the divergence of the needle is scarcely perceptible; the river water of the place acts rather more powerfully. A mixture of the warm water and river water throws the needle some 25 degrees from the pole, and the warm water of the springs at the temperature of 95 degrees causes a divergence of 70 to 75 degrees. I need hardly say that this is just what one would expect from adding a little sulphate of soda and common salt to warm distilled water, and have only entered into this explanation, as this "*electricity in the water*" is looked upon by most visitors as a great wonder, and is devoutly believed in by the bathers.

The temperature at which the baths are taken varies from 92 to 104 degrees Fahr., the great majority being given at 95 degrees, and 98 degrees being rarely exceeded. The duration varies from ten minutes to an hour, but it is rare to exceed thirty-five minutes. The common course is to begin with a bath of ten minutes at 92 degrees; the next day it is increased to fifteen minutes at 93 degrees; the following day at 95 degrees; then comes twenty minutes at 95 degrees, twenty-five minutes and half an hour. At this period from the sixth to the tenth bath half-hour baths are taken at temperatures from 95 to 98 degrees. Then it is usual for the pulse to rise and slight feverishness to come on, when a day or two is allowed to pass without bathing. Afterwards a bath is taken every day at about 95 degrees, in twenty minutes, until twenty-one baths have been taken, when the ordinary course is completed, and the patient leaves. Only one bath is taken daily, and the hour generally preferred is six A.M., the patient resting half an hour after his bath on the bed, and taking a short walk before breakfast at eight. Those who cannot have an early bath generally take them about eleven A.M. The baths are for the most part wooden tubs

about five feet square, provided with a dressing room, and the patient sits in this bath in an arm-chair. There are still common baths at one of the inns and at the Hospital, where some twenty persons sit on a form at the same time, but all the other baths are separate. At one house only they are lined with white Dutch tiles, and in these baths the water appears perfectly clear, and of a beautiful ultramarine blue tint. It is a common thing to see square pieces of wood floating in the baths perforated with holes, through which the stalks of faded flowers are inserted, the power of restoring freshness to the flowers being regarded as a grand proof of the efficacy of the water. How far it differs from ordinary warm water in this respect I cannot say. I have taken these baths myself, and could not perceive the slightest difference in the effect from that of an ordinary warm bath at the same temperature. The body of water being larger, probably eight or ten times that of the common bath in England, the temperature is maintained for a longer time, and as the surface of water exposed to the air is large the room soon becomes filled with warm vapour, the inspiration of which necessarily modifies the physiological action of the bath. In the public baths the operation of this vapour must be less, as the roofs are there open. In fact, they are mere wooden sheds, covering a pond of warm water. One of them is precisely in the condition it was three hundred years ago. When a bath is taken at 92 degrees for ten or fifteen minutes, the pulse is lowered from ten to twenty beats in the minute, and if the patient remain at rest the depressing effect on the pulse does not pass off for two or three hours. A bath at 95 degrees lowers the pulse during the first ten or fifteen minutes, but if the patient remain ten or fifteen minutes longer the pulse rises again to the former standard. At 98 degrees the rapidity of the pulse is somewhat increased. At any temperature there is some little impediment to respiration, and many persons feel heat and fulness about the face and forehead. In this case the temperature of the bath is lowered, or a cold cloth is applied to the head.

The effects upon the system of a course of these baths can hardly be estimated alone. It must be remembered that the patients are breathing the air of a mountain valley more than 3000 feet above the sea-level, are taking active or passive exercise nearly all day in the open air, and are removed from many sources of mental anxiety. But without inquiring too curiously into the precise amount of good done by the baths, the great practical point is to ascertain what benefit a patient may hope to obtain by a few weeks bathing at Gastein, so far as can be learned from the experience of those who have made the trial before. Now the cases in which these waters are believed to be the most useful are precisely those which are looked upon as the most hopeless elsewhere. Cases of paralysis, especially paralysis of the lower extremities, more or less complete, and accompanied by more or less complete loss of sexual power, are the cases in which very remarkable results have been observed to follow the course of baths at Gastein. Even in cases of hemiplegia and general paralysis some extraordinary recoveries are related; in many, it is true, when the important element of *time* should also have been taken into consideration, but in many others the good effect has been too marked not to establish the relation between cause and effect. In cases of neuralgia, hysterical paralysis, stiffened limbs after rheumatism and gout, nervous deafness and amaurosis, the baths maintain their high reputation; and in cases of sexual debility in either sex wonderful stories are related of barren women becoming joyful mothers.

There is an Hospital here for the poor, supported by the Austrian government. It contains seventy beds, and baths for each sex. The common baths are used at 95 degrees. There is a separate bath for each sex for those who require some other temperature, or who are suffering from specific disease. Most of the cases are some of the forms of paralysis or debility I have mentioned above, but there are also many cases of indolent ulcers, which, as may be imagined, soon get well under the influence of rest, sufficient food, and the warm water. There are several cases of different forms of paralysis now in the Hospital which have improved very notably during their stay.

Dr. Hönigsberg, who is the Government Inspector of the Baths here, has the direction of the Hospital. He has published this year a pamphlet entitled, "Wildbad Gastein im Jahre 1856," which contains, among other things, a Medico-statistical account of the patients he treated both in hospital and in private practice last year. The cases of disease of the nervous system are the most numerous and interesting. I have not time now to give an analysis of them, but I may say that in many cases of hemicrania, hyperæsthesia of different parts of the body, intercostal and other forms of neuralgia, sciatica, morbid sensibility, muscular spasms, hysteria, hemiplegia, and paraplegia in different degrees, paralysis of the bladder, impaired vision, and sexual debility, the good effects were very remarkable. The cases are narrated in a very simple manner, without the least exaggeration or enthusiasm, and I may say that as Dr. Hönigsberg was for ten years Physician to a large Hospital in Vienna, the Wieden, his diagnosis and judgment may be relied on. *All* the cases of the year are recorded, whether successful or not; and when he comes to the question, *How* the baths produce their good effects, he speaks like an honest sensible man, confessing that the physiological action of the warm water upon the healthy organism has not been studied with sufficient care, that physics and chemistry go a very little way towards explaining the results really observed, and promising that such experiments as *can* be made in the Hospital, without risk of injury to the patients, *shall* be made in order to determine with scientific accuracy the effect of the water in various forms of disease, and the indications for regulating the number, temperature, and duration of the baths. Until this be done I fear we must be content with the simple statement that patients with nervous diseases apparently incurable do get well at Gastein. How far a succession of warm baths in any other healthy elevated locality would produce the same result is an interesting question it would be well to work out. What say the doctors of Bath, Buxton, or Matlock? It is singular that the baths which come next in reputation in Germany to those of Gastein in cases of paralysis are those of Wildbad in Wurtemburg, where the water approaches even more closely to distilled water in chemical composition than that of Gastein.

I should have said that this place is called Gastein, Bad Gastein, or Wildbad Gastein, to distinguish it from another place, some five miles lower down the valley, called Hof Gastein. There are baths and lodging-houses at Hof Gastein, the water being conveyed in wooden pipes from the principal spring here. It only loses a few degrees of temperature in its passage; and, as the water here is allowed to stand for some hours to cool down before it is used, the Hof Gastein people say that the baths there must be precisely the same in effect as those here. Of course the people here stand up for the water direct from the springs; but the great reason for preferring this place is, that the situation is much more pleasant, the views finer, the walks prettier, and the houses far more comfortable. There is a very large hotel, some smaller ones, and several lodging-houses. In the hotels there are 201 rooms and 48 baths. In the lodging-houses with baths there are 187 rooms and 41 baths, and in other lodging-houses there are 45 rooms; so that about 430 persons can be accommodated with separate rooms. As the ordinary stay of a patient is three weeks, and the season lasts from the 1st of April to the 31st of October, a great many patients can find a room and bath at some part of the season. July and August are the favourite months, though Dr. Hönigsberg thinks May, June, and September more favourable both as to weather and results. Last year 3008 persons, exclusive of attendants, children, etc., came to Gastein. Of these 1664 were private patients, and 335 patients in hospital. More than half of these persons came from some part of Austria; then Prussia and Bavaria; other parts of Germany, Russia, and Sweden came successively. There are only 11 persons from England, 9 from France, and 1 from America. This year the number of English has increased. Mr. Spencer Wells is here, making profitable use of his autumn holiday from London, having accompanied the Marquess of Northamptom and Lord and Lady Alwyne Compton from England. This party are just about to leave. Lord and Lady Portarlington have left. Colonel Upton has also just left with his family. Colonel Vicars, Mr. Mellish, and Dr. Grahame are here. This completes the list of English. Among the foreigners I may mention the Archduke John, the Prince de Rohan, a sister of Prince Metternich, Count Czechini, three Russian officers wounded at Sebastopol, and Mahmoud Pacha, to show the diversified nature of the society.

I may add, that though the rate of living is somewhat dearer than in most of the German watering-places, yet that

the charges are not higher than in most capitals. There is such a demand, however, for rooms that in order to get good ones it is generally necessary to write some weeks or months beforehand. Those who think of sending patients here next year would do well to communicate beforehand with Dr. Hönigsberg, and request him to engage rooms and a bath, the baths being let for certain hours and specified periods.

GENERAL CORRESPONDENCE.

RESULTS OF THE TREATMENT OF TWO HUNDRED CASES OF CONSTITUTIONAL SYPHILIS BY SYPHILIZATION.

[To the Editor of the Medical Times and Gazette.]

Sir,—In your Journal of September 5 you have made some editorial remarks on syphilization, and as your only wish is to place the matter in a true light, perhaps you will kindly permit me, though a foreigner and a casual visitor here, to make a brief reply.

You speak of the subject from theory only. I can speak of it on the far surer ground of practice; for I have now treated upwards of 200 cases of constitutional syphilis, that is, of the secondary and tertiary forms of the disease, by syphilization alone; and with far greater success and certainty than belongs to any other form or forms of medication that I am acquainted with in this malady. Several of these 200 patients had been afflicted with syphilis, and with bad forms of it for years. This mode of cure has succeeded perfectly in every case, with the exception of a few in which mercury had been taken previously, and where the nodes or caries already present have so far necessarily left deformities.

I have, indeed, the most sincere conviction and proof—

1. That there is no fact more certain in Medical and Surgical therapeutics than the fact of the curability of constitutional syphilis by syphilization.

2. That this method of curing constitutional syphilis is infinitely more certain than the methods of cure by mercury, iodine, hunger-cure, or any other means yet proposed.

3. That it is free from the dangers attending the mercurial treatment; and

4. That relapses are more rare after this than after any other known method of treating secondary or tertiary syphilis.

For the last five years I have been using syphilization in my practice. I have watched it and its results with the greatest possible care, and am thus entitled to express an earnest opinion regarding it. But you may ask me, and with justice, what induced me at first to commence the practice of syphilization. To this I would reply, that when we have against any disease a good and certain remedy we should be very cautious in trying a new one. Were something new proposed, *e. g.* for intermittent fevers, we should not be very zealous in adopting it; for in quinine we have a safe and sufficient remedy; and were any one to propose a new and apparently more dangerous one, we should, perhaps, be justified in hesitating and holding back. Now the question is, Have we any such certain remedy for syphilis? In my opinion we have not. I have gone over the journals of the Hospital in Christiania for the last thirty years, and I find that of the cases of constitutional syphilis treated with mercury 27 per cent. have returned to the said Hospital with a relapse of the disease. If you consider that many relapsed cases have been treated elsewhere, you will see that the proportion of relapses is very great; and yet the mercurial treatment was in all these cases cautiously yet fully carried out. I believe the results in other Hospitals are not very different. But not only have we frequent relapses after mercury; we have also dangerous sequelæ, the connexion of which with the remedy employed cannot be questioned, particularly diseased bones, paralysis, etc.

These considerations prompted me to try a new remedy, which seemed to me at first thought just as incomprehensible and repulsive as at this moment it appears to you. What was known of syphilization in 1852 seemed to me, however, to prove, beyond a doubt, that we had to do with something hitherto quite unknown, as well in a physiological as in a pathological and therapeutic point of view. At that time the published experiments of Sperino on man, and of Auzias Turenne on animals, were so striking as evidently to deserve the attention of Medical men in a theoretical or physiological point of view, even though the practical consequences anticipated from them had never come subsequently to be realized. But the practical consequences are now far more interesting and more important than the physiological questions connected with syphilization.

You have yourself explained how the syphilisation is effected; and here I would only remark, that those numerous insulated pustules or chancres of which you have spoken are not in practice so formidable as might be expected, for it is only the first twenty or thirty that come to any size; afterwards they always become less and less as the ease and the cure proceeds, until they finally disappear, the syphilitic matter first inoculated having no longer any effect whatever.

I regard this as a new fact, and we dare not reject it merely because we cannot explain it. But here we have several further new facts. If we now take some fresh primary virus from any other patient, we can produce a new series of inoculations, but this second series is not at all so great or severe as the first; and we hence clearly recognise that a salutary change has occurred in the organism of the patient. We can take still a third quantity of new virus from a primary chancre in another patient, and with this produce some few chancres; and perhaps even with a fourth or fifth we may excite a couple of small insignificant pustules.

Had we formerly any idea of these phenomena? Of immunity by such means from the syphilitic poison no one had previously any conception. But, of course, there are some who believe that it affords no immunity. I shall therefore make a few observations on this point.

I have told you that the series of inoculation-pustules that can be made with every new quantity of matter become always smaller and smaller as the syphilisation proceeds; and that at last, as the cure is completed, no further series, or no further pustules, can be produced. I have explained to you, further, that the earlier chancres are very large, the later very small and abortive, so to speak. I am, therefore, convinced that the few small pustules which we produce with a fresh virus, and which lead to no characteristic ulcers, cannot be regarded as proofs of the cure not being completed. I will not engage in any strife as to the word "immunity;" I would only insist on this, that the body is brought into a new and healthier condition by these inoculations.

I come to the indications for the employment of these inoculations. You have spoken of syphilisation as a prophylactic means; and, in truth, this idea was expressed by Auzias Turenne, when he first discovered the immunity in animals; but it has never been carried out in practice with this view. The only question is, in what cases of syphilis may it be employed? With you I perfectly agree in thinking that such a use of syphilisation as that to which I have just alluded is unjustifiable. Further, I never employed, and should never employ, syphilisation against primary syphilis; for no one knows with perfect certainty whether the patient who has a primary sore will or will not become affected with constitutional syphilis; and I have assuredly no authority to introduce into the organism of a patient a poison which is not already there. I should, therefore, only use syphilisation against constitutional syphilis; for here the whole organism is already pervaded with the syphilitic poison, and here I therefore introduce nothing new into the system. Of late years Sperino has employed syphilisation only as a remedy for constitutional syphilis, as I had always done.

What have been the results of the inoculations? In answering this question, we must distinguish between the cases where mercury had not previously been used, and those which had undergone one or other of the forms of mercurial treatment. Those under my care who had used no mercury were all, without a single exception, cured by syphilization. All that I have found necessary was, to inoculate the trunk or limbs every three days, regardless of any new symptoms that developed themselves. Even iritis I have come to regard without apprehension; for, like other intercurrent symptoms, it spontaneously disappears during the syphilization, without requiring any special treatment.

When mercury has been used, we have to do with quite another matter: then everything does not go on so regularly; then we may have relapses; in short, we must not judge of the effects of syphilization from such cases. You will ask, then, whether in such cases syphilization should not be em-

ployed? And I answer, Yes. In combination with iodine it will usually accomplish a cure; and, even in the worst and most doubtful cases, it will produce great and marked melioration.

As this treatment can be employed in adults, it can, in like manner, be applied to the youngest children; and it is worthy of remark, that immunity results in these small organisms from only little ulcers.

The Physician might feel anxious as to the effects of syphilization on the body and system in general; but this anxiety is uncalled for, because the syphilizated enjoy good health. In my private practice, I let them pursue their usual avocations; they eat and drink just what they please; and if, before being syphilizated, they were weak, they never fail to improve in health afterwards; so that, after the syphilization is finished, they are quite as strong and healthy as before being attacked with syphilis.

I have still to speak of the relapses. Of these I have had three individuals, who had not previously taken mercury. Great stress has been laid on these relapses; but, were I to enter into the subject at length, I could show that even relapses do not argue against syphilization; but at present I would rather have them looked upon as ordinary relapses, and observe, that it is a very unusual and a very favourable proportion to have, out of about 100 previously non-mercurialized patients, only three relapses. These three were all cured by a second syphilization; and I would merely add, that in this second syphilization they were susceptible of a much smaller number of inoculations than at first before immunity became established.

The number of relapses, among the 100 (or so) previously mercurialized patients, I cannot at this moment, and at this distance from home, venture to state, but unquestionably the relapses were far milder than the previous disease.

Since finding these beneficial results from syphilization, and such unfavourable ones from mercurial treatment, I have of late treated constitutional syphilis invariably by syphilization. If what I have communicated to you be true, then I think you will agree with me as to the great importance of syphilization. That you cannot comprehend, any more than I can, how repeated inoculations produce their effect, signifies nothing. As explorers of Nature, we must first carefully observe nature; afterwards we may attempt to explain the observed phenomena. But in the meantime, as a practical man, I content myself with the great practical fact that, in syphilization we have the purest, simplest, and safest cure for constitutional syphilis which has yet been discovered.

I am, &c. W. Boeck,
Professor of Medicine in the University of Christiania.
Edinburgh, September 11, 1857.

RESPONSIBILITY IN THE ADMINISTRATION OF CHLOROFORM.

[To the Editor of the Medical Times and Gazette.]

Sir,—Although the momentous point with which we started, viz. "Responsibility in the administration of chloroform," has been lost sight of both by Dr. Aveling and myself for another phase of the subject, I do not regret it, as he has shown himself willing, for my "benefit," to furnish cases where chloroform is necessary to save life,—which last statement of a monopoly of power in chloroform his first letter contains, and his last letter exemplifies. I feel obliged to Dr. Aveling for this small account of his peculiar use of the chloroform, as it is new to me, and, as all my remarks on the subject have been offered only in its relation to surgical operations. In regard to the new kind of treatment of familiar ailments, such as he has now brought forward, I must, however, at once confess that I cannot agree with him in considering chloroform as indispensable in their treatment, while I know how amenable they have ever been in my own hands to the old and well-known modes of management.

As to hernia, although some degrees of strangulation can be overcome by relaxants or the taxis, yet the great proportion of this kind of accident cannot be successfully encountered by anything short of the knife, which, used early, and with common skill and care, is seldom attended with danger,—at least so says my experience, which is a great gathering from five operations (the whole amount of my provincial exploits in this line), performed without an anæsthetic, without a death, and without any untoward symptom. It is true that this is narrow ground for a broad inference; but still it is ground, it is experience, it is fact. When we reflect on what strangulated hernia generally is, how can we wonder that nothing less than mechanical means can reach it? for what do we behold when we make a division of the abdominal integuments?—a knuckle of the vitals inflated, partly filled with solid contents, and red to bursting with injected blood, grasped, as it were, around the neck by a tight band of tendon which will not yield, and which cannot relax its hold.

As to puerperal convulsions, knowing, as I do, something of the modus operandi of chloroform, and something of the ordinary condition of the system in this dreary affection, I confess that I cannot see how this particular agent can necessarily fulfil the great indication of cure; but I understand readily enough how the old time-honoured measure of depletion can do it; and by depletion I mean the unloading of the bowels and the vascular system, in connexion with the usual subsidiaries, and also the emptying of the uterus itself, if required.

The reference to my own surgical practice is, perhaps, not so irrelevant to the subject as Dr. Aveling's ironical treatment of it would lead any one to suppose, seeing that there are some individuals among us who hold that the important surgical operations may not be undertaken without some anæsthetic.

In making the few observations which I have been allowed to place in your useful pages, I hope I have not been influenced by a captious, but by a cautionary spirit, especially as I feel that chloroform will be used more and more, and that its discovery, and its application in judicious hands, are a priceless boon to the community, which already rejoices in the immunity from pain which it brings, and the conservative power over the nervous system which it exercises, so as to contribute in some instances even to the preservation of life.

I am, etc. Thos. Aspray, L.A.C.E.

ARREST OF DEVELOPMENT IN UTERO.

[To the Editor of the Medical Times and Gazette.]

Sir,—Having read Mr. R. O. Clark's cases of arrest of development in utero, and having had one in some degree similar to the first he mentions, I am induced to trouble you with it. In the night of December 9, 1855, I was called up to attend a Mrs. M., in humble circumstances. I found her a primipara, aged 19, and at the eighth month of her pregnancy. The labour was completed in five hours. The child was very small, and totally expelled by one pain. Having given the child to the nurse, I was attending to the comfort of my patient, when she suddenly asked me if its hands and feet were perfect. As the child was crying lustily, I had not noticed it so closely; but as the nurse gave me a very significant pull, I replied, "I hope so." I now paid attention to it (a boy), and found the right hand defective, as follows:—The index and next finger united closely the whole length, the other two and thumb each wanting the first joint; the feet and left hand perfect, as also all other parts. On my calling in the morning, I mentioned this to her, and asked why she had so promptly asked the question—if she had any cause for so doing? She said no. I asked if she had been frightened in any way. It appeared that about the fourth month she had been startled by an idiot girl, but was not aware that she was in any way deformed. I lost sight of Mrs. M. a fortnight after her delivery. If the above case possesses any interest in relation to those mentioned by Mr. Clark, it is at your service.

I am, etc. R. Bateman,
Assistant to Dr. J. R. Pretty.
31, Bayham-terrace, Camden-town.

OBITUARY.

MR. EDWARD LONSDALE.

Mr. Edward Lonsdale died suddenly at his residence, Montague-street, Russell square, on the afternoon of September 11. He had suspected the existence of heart-disease for some time, and a few months since he consulted an eminent Physician, who examined him carefully, and considered that his symptoms depended upon derangement of the stomach. He had occasional pain and uneasiness

in the region of the heart and stomach, and he complained sometimes of giddiness. On Wednesday week he went round the Orthopædic Hospital with one of his colleagues, and complained several times of a sharp, catching pain, which he thought might be due to muscular rheumatism. He remarked that the pain seemed to affect his diaphragm and some of the muscles of respiration. He said, in a half-serious manner, "The fact is, I have got disease of the heart." The evening before his death he brought up a considerable quantity of blood, having previously suffered from slight hæmoptysis two or three months ago. On the morning of the 11th instant he sent for his friend Dr. G. O. Rees, but was well enough to sit up in his room, though he did not see any patients. Dr. Rees called about one o'clock, and while conversing with Mr. Lonsdale, the latter unfortunate gentleman suddenly brought up an immense quantity of blood, and instantly expired. Mr. Lonsdale was a thoroughly good Surgeon, a most sincere and warm-hearted friend, and a strictly honourable and upright man, of high independent spirit. These characteristics were always conspicuous both in his private and professional relations. To the patients of the Hospital he was extremely kind and attentive. By his death society has lost an amiable man, and the Profession an honourable and distinguished member. At the time of his death he held the appointments of Surgeon to the Orthopædic Hospital and to the Artists' Benevolent Fund. He was the author of a Treatise on Fractures, which was his best production. His Observations on the Treatment of Lateral Curvature of the Spine also exhibited abilities of a very high order. He also published some lectures a few years since in the *Medical Gazette*, and his other contributions to the Medical Journals evinced the ardour with which he pursued his Profession.

MEDICAL NEWS.

Apothecaries' Hall.—Names of gentlemen who passed their examination in the Science and Practice of Medicine, and received Certificates to Practise, on Sept. 10, 1857 :—

Fennell, Sydney, Cradly, Worcestershire.
Hide, William Edward, Ledbury, Herefordshire.
Sharpin, Edward, Bedford, Beds.

DEATHS.

Bateman.—On the 13th instant, at Leamington, Warwickshire, George Bateman, M.D., formerly of Great Yarmouth, Norfolk.

Lonsdale.—September 11, in Montague-street, Russell-square, Edward F. Lonsdale, M.R.C.S. Eng. 1834; F.R.C.S. (Hon.) 1843; Surgeon Royal Orthopædic Hospital.

Oliver.—At Stilton, Huntingdonshire, on the 5th instant, James Watson Oliver, L.S.A. 1845; aged 42.

Smith.—At Edinburgh, on the 9th instant, Alexander Francis Smith, of Kirkaldy.

APPOINTMENT.

Arthur B. Steele, Esq., has been appointed Honorary Surgeon-Accoucheur to the Liverpool Ladies' Charity, *vice* G. B. Denton, Esq., resigned.

Queen's College, Birmingham.—The public distribution of prizes will take place in the College Theatre by the Principal, Dr. Booth, on the 2nd of October, when an address on the engrossing topic of the day, "Middle Class Education," will be delivered by that accomplished physician on the occasion.

Testimonial to Dr. M'Carthy of Kenmare.—At a numerous meeting of the committee of the County and City of Cork Medical Protective Association, held on Saturday, September 5, 1857, Philip N. Walsh, Esq., M.D., Midleton, in the chair, the following resolutions, proposed by Dr. Richard Corbett, and seconded by Dr. D. K. Lloyd, were unanimously adopted—"That as a body of Medical men, associated to uphold the honour and interests of our common profession, we feel it a pleasurable duty to mark our high admiration of the noble and independent stand made by Dr. M'Carthy before the Kenmare Board of Guardians, against the gross injustice, done not only to himself and confrere, by reducing their salaries, but also in behalf of the Poor-law Medical Officers of Ireland, to whom is meted out a wretched stipend for arduous duties. That the faithfully eloquent, argumentative, and impressive address, which so earnestly and graphically pictured, as well the slavery as the miserable pay of our brethren occupied in the Medical charities, demands more than a passing encomium from the profession at large; and that we feel bound, not merely to accord our thanks, but, if possible, to present such a substantial testimonial to Dr. M'Carthy, as we trust will be worthy his acceptance. That such a testimonial will evidence to the 'Powers that be,' who ought to have thrown their shield over a hard-working and zealous public officer, more especially when now in declining years and health, that there exists in the Medical Profession a feeling which will ever lead its members to mark their sense of an act of injustice, paltry in the extreme, and equally unworthy those who originated, as those by whom it was sanctioned. That a subscription be at once entered on, and that the amount from each member of the profession be 5s. That Charles Hewitt, Esq., M.D., Patrick's-hill, Cork, be requested to act as treasurer."

The "European Statistics of Suicide," recently published in France by M. Lisle, show that England is no longer at the head of the dreary poll. The French author proves that France is highest in the scale, and Russia lowest. In London we have one suicide in 8250 people. Paris gives one in 2221. For the whole English population the suicides reckon one in 15,900; France, one in 12,489. The north of France is the most prolific in suicides, that district yielding nearly half of the whole number in the entire empire.

Dr. Maclean, head of the Army Medical Department in Ireland, is about to retire from the service. This intimation will be received by the Medical officers of the Army who had the advantage of serving under him with great regret. His urbanity and kindness, the skill which he brought to the discharge of his public duties, the facility of access to him upon all occasions, his great experience in regimental and Hospital functions, the desire which he has always manifested for the well-being of the sick soldier, and for the honour and respectability of the profession to which he belongs, as of the department over which he has presided for several years in Ireland, have justly rendered him a universal favourite with his own branch of the service as well as with the higher military authorities with whom he has been associated. Dr. Maclean joined the army in 1809, and served at Walcheren in the same year; he also served in the Peninsula from February 1810 to the end of the war in 1814, and was present at the battles of Busaco, Salamanca, Vittoria, and the Pyrenees; he crossed the Bidassoa, and served at the battles of Nivelle and Toulouse, and subsequently in the East and West Indies. Few officers retire from the service with more friends, or more generally respected than does Dr. Maclean, who has spent half a century in the public service, with vast advantage to his department.—*Saunders' News Letter, Sept.* 11.

The Cattle Murrain—The *Devizes Gazette* says that the murrain has made its appearance among the cattle in this neighbourhood. In one dairy, near this town, several cows have been necessarily slaughtered, and losses have, we are told, occurred in other parts of the county. The *Bridgewater Times* also reports the appearance of the disease in that neighbourhood, and says it was first heard of as attacking a beast recently imported from Ireland, the owner believing it had brought over the complaint; but it also has appeared simultaneously in other parts of the low grazing lands of Somersetshire, and where there was no reason to suppose it was imported by any foreign cattle. In fact, much difference of opinion prevails as to the contagious power of the disease.

The Cholera.—The *Daily News* states that the Cholera has broken out at Hamburg. Between the 29th of August and the 6th of September there were 239 cases, of which 136 proved fatal.

The Kilkenny District Lunatic Asylum. — The resident managership of this institution is at present vacant, by the election of Dr. Lalor to the managership of the Richmond Asylum.

A Quack.—A few days since, at the Wakefield Court House, a fashionably-dressed individual, who wore a profusion of jewellery, a moustache and imperial, and who gave the name of William Langley Riley, was charged with obtaining money on false pretences. A very smart-looking young woman, named Sarah Smith, was also charged with aiding and abetting Riley. The chief constable applied for a remand till Monday, which was granted; Mr. Wainwright, who prosecutes, briefly stating that the prisoners were travelling about the country in a conveyance, under the designation of "Drs. Langley Riley and Co." "Dr." Langley Riley's manner of duping the public was original. He pretended to be one of the Medical officers from the Royal College of Health, London, and to be sent down by Government for the especial behoof of the poor. He professed to dispense medicines gratis, only charging for what he pretended was the "government stamp." A large medicine chest was produced in court, containing spurious drugs. Since the apprehension of the prisoner it has been discovered that he has a wife and six children, who have been deserted by him for the last four years. Both prisoners were sent to the House of Correction.

Russian Cure for Hydrophobia.—M. Guérin-Méneville, at a recent sitting of the Academy of Sciences, called the attention of that body to the following letter of Prince Eugène of Sayn Wittgenstein, which has appeared in the *Morskoi Sbornik*, a journal published under the direction of the Scientific Committee of Marine at St. Petersburg:—"Sir,—In conformity with the order of the Director of the Department of Marine at Nicolaieff, I have to request the insertion of this letter in your journal:—On the 29th of January last M. Iwantshenko, an ensign of the navy, was bitten by a mad dog in his father's house. The accident being reported to his Excellency the Director of the Department of Marine; he was at the same time informed that an officer, a native of the government of Riazan, knew of a landed proprietor, named Levachoff, in that province, who was celebrated for his wonderful cures of hydrophobia. In the present case the patient's wounds had been cauterised; nevertheless, it was considered prudent to send him to Riazan, a distance of 1000 versts. He arrived there in seventeen days, under the guidance of a vigorous and intelligent courier, who was directed to watch his companion closely. During the journey the wounds continued to suppurate slightly, and were occasionally rubbed with salt, which used to cause the patient great pain. On the 19th February M. Iwantshenko, provided with an introduction from the Civil Governor of Riazan, arrived at the village of Petletz, and presented himself to M. Andrew Nikititsh Levachoff. The first thing the latter did was to seize his patient's hand, and to press it very hard, in order to ascertain whether he was really labouring under the disease. The patient felt an acute pain, and his sight became dim; after a minute the pain ceased, but he was seized with deep melancholy, uneasiness, and fear, after which he lost his senses completely, this delirium lasting thirty hours. All these were well-known symptoms of the first period of hydrophobia. The existence of the malady being thus ascertained beyond a doubt, M. Levachoff administered a pill composed of drugs, the secret of which has descended from father to son in his family. The pill threw the patient into a quiet slumber, which lasted four hours and a half; on waking, he was perfectly calm and conscious, and asked for another dose. The treatment was now regularly continued, and ended with the fourth pill; but the first alone had already brought on convalescence. Besides the pills, M. Levachoff uses certain powders, which are useful accessories in the cure. M. Iwantshenko stayed with him until the 5th of March, and inscribed his name in M. Levachoff's book as the 1791st case cured by his method. On leaving, he received his instructions as to diet; they were—to abstain from smoking for a fortnight, and from wines, spirits, spices, very nourishing animal food, and in general all substances having the effect of inflaming the blood. During M. Iwantshenko's stay at Petletz, he witnessed several wonderful cures effected by his host. It is particularly remarkable that those who have once been cured by this method experience no ill effects from any subsequent bite. M. Levachoff never on any account accepts anything for his services; he sends his pills gratis to those who apply for them, with instructions how to use them; but these pills do not preserve their curative qualities more than a week." On the subject of this letter, M. Guérin-Méneville reminded the Academy of a late communication of his, in which he had mentioned several cures of hydrophobia effected in other parts of Russia by administering the *Cetonia aurata* (the common rose-beetle) in the form of a powder, and proposed that experiments be made, under the auspices of the Academy, to ascertain the power of the above insect as a specific, there being sufficient reason to suspect that M. Levachoff's remedy is the cetonia in question.

Employment of Glycerine Internally.—Dr. Crawcour, of New Orleans, reports highly in favour of the substitution of this for cod-liver oil. He has used it in phthisis, scrofula, and mesenteric disease, sometimes in combination with iodine or the various salts of iron. Quinine is soluble in it without an acid, and it is a valuable solvent of phosphorus. The dose is ʒj.—ʒiij. ter in ʒj. aq. Large doses cause nausea, and it may be made chemically pure and cheaply by decomposing lard or oil with hydrate of lime.—*Boston Journal*, vol. lvi. p. 188.

Perchloride of Iron in Diseasr.—M. Delcau says, that after employing this inh æmorrhage in general, he has gradually extended its use to uterine hæmorrhage, leucorrhœa, gonorhœa, chancre, vaginal ulceration, and scrofulous affections. After thus trying it during two years in his hospital with eighty beds, he concludes—1. That the perchloride may be employed internally or externally without any danger. 2. That it is the most powerful hæmostatic known. 3. That it especially exerts its therapeutical effects on the mucous membranes, as in gonorrhœa, leucorrhœa, bronchial catarrh, etc. 4. That it is an antisyphilitic. 5. That it is a powerful agent in scrofulous disease.—*Comptes Rendus*, tom. xliv. p. 1310.

VITAL STATISTICS OF LONDON.

Week ending Saturday, September 12, 1857.

BIRTHS.

Births of Boys, 813; Girls, 762; Total, 1575.
Average of 10 corresponding weeks, 1847-56, 1442·3.

DEATHS REGISTERED DURING THE WEEK.

Causes of Death.	In the Week ending Saturday, Sep. 12, 1857. Deaths of Persons. At all ages.	Under 20 Years of Age.	At 20 and under 40 Years of Age.	At 40 and under 60 Years of Age.	At 60 and under 80 Years of Age.	At 80 Years of Age and Upwards.	Averages of Temperature and Deaths in 10 Weeks.
Mean Temperature	Mean temp. 60°5						56°9
All Causes	1023	565	122	150	136	28	1369·3
Specified Causes	997	562	122	150	135	28	1363·6
Diseases:—							
1. Zymotic Class	314	251	18	17	24	4	661·7
2. Dropsy, Cancer, and others of uncertain seat	39	3	9	16	10	1	46·4
3. Tubercular Class	175	84	50	34	7	..	173·3
4. Of Brain, Nerves, etc. ..	72	33	5	18	15	1	110·4
5. Of Heart, etc.	33	2	9	10	10	2	33·1
6. Of Respiratory Organs ..	99	53	7	14	23	2	90·0
7. Of Digestive Organs ..	64	28	7	18	9	2	64·2
8. Of Kidneys, etc.	21	2	6	6	6	1	11·7
9. Of Uterus; viz. — Puerperal Disease, etc. ..	4	..	2	1	1	.	9·2
10. Of Joints, Bones; viz.— Rheumatism, etc. ..	6	1	1	3	1	..	5·7
11. Of Skin, etc.	3	2	..	1	..	..	2·3
12. Malformations	6	6	..	..	..	..	3·7
13. Debility from Premature Birth, etc.	33	33	..	..	..	..	20·2
14. Atrophy	59	48	1	4	6	..	34·0
15. Age	34	..	..	..	19	15	37·6
16. Sudden	3	1	..	1	1	..	11·0
17. Violence, Privation, etc. ..	32	15	7	7	3	..	40·1
Causes not specified	26	3	..	..	1	..	5·7

METEOROLOGY.

From Observations at the Greenwich Observatory.

Mean height of barometer	29·742 in.
Mean temperature	60·5
Highest point of thermometer	75·7
Lowest point of thermometer	51·4
Mean dew-point temperature	56·4
General direction of wind	S.W.
Whole amount of rain in the week	2·24
Amount of horizontal movement of air in the week ...	520 miles

DEATHS.

	Males.	Females.	Total.
Deaths during the week	511	512	1023
Average of the ten years 1847-56	..	..	..
Average corrected to increased population	...	..	1151
Corrected average for corresponding week in ten years 1847-56	679·3	690·0	1369·3
Deaths of people above 90	0	5	5
Deaths in 13 General Hospitals	39	12	51

DEATHS IN SUB-DISTRICTS FROM EPIDEMICS.

	Population. 1851.	Measles.	Scarlatina	Hooping-Cough.	Diarrhœa.	Cholera.	Typhus.
West	376,427	2	11	2	24	1	4
North....	490,396	2	8	4	32	..	12
Central ..	393,256	3	9	3	21	1	..
East	485,522	7	8	9	33	4	14
South	616,635	2	8	2	34	3	9
Total..	2,362,236	16	44	20	144	9	39

BOOKS RECEIVED.

Twenty-seventh Annual Report of the Belfast District Hospital for the Insane. 1857.

The Care of the Sick. By Richard Barwell, F.R.C.S. Second Edition. London: Chapman and Hall. 1857.

Twenty-second Annual Report of the Medical Benevolent Fund.

Observations on the Report of the Sanitary Commissioners in the Crimea during the years 1855 and 1856. By Sir John Hall, M.D., K.C.B. London. Clowes and Son.

Copy of the Medical Statistical Returns of the Baltic and Black Sea Fleets, during the years 1854 and 1855.

TO CORRESPONDENTS.

It is requested that the authorities of the Universities, Colleges, Hospitals, and Medical Schools, who intend that the prospectuses of their respective establishments should appear in our Students' Number, will send in their answers to our inquiries without delay, if they have not already done so.

A Young Surgeon.—It is not likely that there will be more than the advertised number of vacancies filled up at the next examination for the appointment of Assistant-Surgeons in the East India Company's service. The late troubles in India, so far from creating a demand for more Medical Officers, will have a directly contrary tendency; for the Bengal Army having ceased to exist, the number of Surgeons will be disproportionately large. The Queen's Army, on the other hand, will probably present a greater number of vacancies than usual, owing to the great number of Queen's troops ordered to India.

Union Medical Officer writes thus:—"It is said we have had a boon granted by making our appointments permanent. This would be so did they adequately remunerate the Medical Officer, but to make his paltry pittance permanent seems to be a boon on the other side. Why should such disparity exist in different Unions, the salary ranging from £15 to £150 per annum, and this by no means depending upon the amount of labour to be performed, but simply on the different degrees of liberality of Boards of Guardians? Surely the Commissioners are placed at the head of affairs to obviate such gross injustice as this, and yet when appealed to they appear afraid to assert their powers, lest they should have to quarrel with the Guardians They make laws, and the Guardians please themselves whether they adopt them. Surely their position is, "Vox et preterea nihil."

Ignoramus.—The term "obtaining a degree of M.D. from Lambeth," implies that the candidate has been made a Doctor of Medicine by the Archbishop of Canterbury, whose town residence is at Lambeth Palace. These degrees are valid in law, but of course no examination is passed for obtaining them. Certain fees, however, must be paid for the Diploma.

M.R.C.S. and L.A.C.—Fractures are paid for as extras, but we believe that attendance upon a case of severe bruise would be included in the contract. We print the rest of our Correspondent's letter above.

M. A. John T.—The neuralgia may, possibly, depend upon the irritation of the decayed stumps of teeth. Consult some respectable dentist after taking the advice of your ordinary Medical attendant.

Chirurgus.—We are authorised to state that married Medical men are not eligible as candidates for the appointment of Assistant-Surgeon in the Army.

The paper by Dr. Graefe on the Mode of Vision after Operations for Cataract, which appeared in our last Number, was translated and kindly forwarded to us by Mr. Thomas Windsor, Senior Assistant-Surgeon of the Manchester Eye Hospital.

Dr. Edward Simpson.—The address of Dr. Francis Churchill is No. , Boulevard de la Madeleine, Paris.

Mr. R. Blagden.—The paragraph in question was copied from the columns of a newspaper.

Chlorodyne.

TO THE EDITOR OF THE MEDICAL TIMES AND GAZETTE.

Sir,—Will any of your correspondents who have tried "Chlorodyne" give a few cases illustrative of its vaunted properties, as advertised by Mr. J. T. Davenport. I am, &c. Nota Bene.

Sale of Drugs.

TO THE EDITOR OF THE MEDICAL TIMES AND GAZETTE.

Sir,—Allow me to call your attention to a subject connected with the sale of drugs, which it is very important to make known to the Medical Profession, and through them, by way of caution, to mothers. I allude to the practice by nurses of administering narcotics secretly to infants, for the purpose of obtaining a "good night's rest" themselves.

This custom being more prevalent than is generally imagined, it is very important to include the sale of all opiates and alkaloids under the same restrictions as arsenic and similar active poisons; but the "Sale of Poisons Bill" having been delayed, a great length of time must necessarily intervene before any enactment can be made or take effect, and the more needful is it for all possible means to be used by individuals and by the united efforts of Medical bodies to check the facilities and avert the dangers which at present are so open to ignorant and careless hands, and I may add, to designing heads, to make use of.

Numbers of infants die from the cause above alluded to. Sometimes the death is sudden; sometimes the little sufferer lingers on a miserable existence for months. In either case it is considered that the child "died from natural causes," because young children do so often die, and no one knows why, because no very deep inquiry is made on the subject.

If these things were investigated with a desire to arrive at the truth, it would frequently be found that the little sufferer, on the contrary, died from very unnatural causes. One of the most prolific of these causes of death is the secret administration of opiates by nurses; and I believe I am only expressing the feelings which every just and benevolent person must entertain, when I state most unhesitatingly my opinion that the nurse who administers such a deadly drug, and the Chemist who supplies her with it knowingly for such a purpose, are both deserving of the highest penalty the law can inflict. I am, etc. "Pro Bono Publico."

COMMUNICATIONS have been received from—

Dr. Elliotson; Dr. Andrew Smith; Mr. James Barron; Pro Bono Publico; Dr. Boeck; Mr. W. Adams; Mr. Thos. Windsor; Dr. J. R. Pretty; Mr. J. R. Wheatley; Mr. Charles Armstrong; The General Board of Health; The Medical Benevolent Society of Birmingham; Mr. Henry Thompson; Dr. Francis Churchill; Mr. Masfen; Mr. R. Blagden; Mr. Marshall; Mr. Thomas Aspray; Dr. Gregorius; M.R.C.S. and L.A.C.: Ignoramus; Mr. Ernest Hart; Messrs. Penny; Mr. W. Simonds; Dr. H. Johnson; Mr. H. Lloyd; Mr. J. Sutcliffe; Mr. Beaumont; Mr. G. Nunn; Mr. E. J. Pickslay; Mr. J. Williams; The Rev. R. Oulton; Mr. Hardy; Mr. W. Lupton; Mr. W. Wood; Mr. Sands Cox; Dr. Henry Reginald West; Nota Bene; Mr. Arthur B. Steele; A Young Surgeon; Mr. John T.

APPOINTMENTS FOR THE WEEK.

19. *Saturday (this day).*

Operations at St. Bartholomew's, 1½ p.m.; St. Thomas's, 1 p.m. King's, 2 p.m.; Charing Cross, 1 p.m.

21. *Monday.*

Operations at the Royal Free Hospital, 1 p.m.; Metropolitan Free Hospital, 2 p.m.; Orthopædic Hospital, 3 p.m.

22. *Tuesday.*

Operations at Guy's, 1 p.m.; Westminster, 2 p.m.

23. *Wednesday.*

Operations at University College Hospital, 2 p.m.; St. Mary's, 1 p.m. Orthopædic Hospital, 3 p.m.

24. *Thursday.*

Operations at St. George's, 1 p.m.; Middlesex, 12½ p.m.; Central London Ophthalmic, 1 p.m.; London, 1½ p.m.

25. *Friday.*

Operations at the Moorfields Ophthalmic, 10 a.m; Westminster Ophthalmic, 1½ p.m.

Whicker and Blaise (late Savigny

and Co.,) 67, St. James's-street, beg to call the attention of the Medical Professiou to their Registered MERCURIAL VAPOUR-BATH, for the Treatment of Syphilitic Affections, &c., (see "Lancet," March 14th and August 29th,) used at St. George's, the Westminster, King's College, the Lock, the Hospital for Children, many Provincial Hospitals, and by numerous professional gentlemen.

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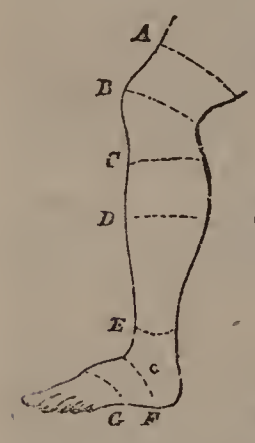

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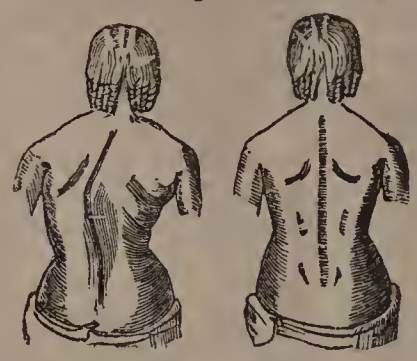

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Medical Times & Gazette.

SATURDAY, SEPTEMBER 26.

ADDRESS TO STUDENTS.

The shades of Autumn begin to gather around us, and we are reminded that the First of October is at hand; a period when the Medical Student, full of health and of hope, repairs to the Schools to resume or to commence his labours. The aspirant to Medical honours cheerfully leaves the green fields and the shady lanes, the breeze of the mountain or of the ocean, to immure himself within the walls of Hospitals, Lecture-rooms, and laboratories; in the anticipation that the knowledge derived from such sources will enable him to become a future benefactor to his species, by alleviating the physical ills to which human flesh is heir. To fulfil this noble ambition he consents to forego the fascinations of society and the seduction of ease, to make himself familiar with human suffering in the Hospital-wards or the operating theatre; to explore, with the scalpel in his hand, the traces of disease, or the mechanism of healthy structure, in the dead-house or the dissecting-room; and to ponder, by the midnight lamp, over the records of experience in the knowledge of human infirmities, and the treatment which they require. Such are, literally, the occupations which must for several years employ the energies of the Student of Medicine; and he who devotes himself with the greatest zeal and perseverance to the task, may reasonably expect in after life the greatest success in the treatment of disease, and the greatest share of the rewards and emoluments which are bestowed upon successful Medical Practice.

The season of youth is the season for exertion; and the mind at this period is in the most pliant state, capable of receiving, with the greatest facility, good or bad impressions, which leave their traces to the latest hours of existence. Although, therefore, we may feel that we are repeating an admonition which has often been given before, and too often, alas! given in vain, yet we cannot refrain from urging upon our young friends, in the most strenuous manner, the necessity of forming, at the earliest possible period, habits of steady application and unflinching perseverance. The enemies you will have to encounter are not the open assassin, or the robber who meets you on the highway; but the syren Pleasure, who lures you to destruction by an easy and a flowery path; or the demon Sloth, who benumbs your faculties while lulling you to a fictitious repose. These are the rocks and the quicksands which obstruct your career, and are equally dangerous to those gifted with high endowments of intellect as to those possessed only of moderate powers. In full seriousness and solemnity, therefore, we advise all Medical Students to be most careful in the choice of their associates, as well as most scrupulous in the employment of their time. As a general rule, make but few friends in your student-career; avoid altogether the society of those whom you know to be idle and dissipated; do not aim at associating with those who are richer than yourselves, as they will generally lead you into expenses which you will be unable to bear; cultivate the good opinion of your Professors and Teachers; endeavour to gain the friendship of those students whom you see punctual at the lecture-room and the hospital, taking notes of the lectures and of the clinical observations, and do not think the less of them because their coats are not of the newest fashion; gain the esteem of persons older than yourselves; and, if you can, cultivate the society of pure and honourable females.

For the reasons above indicated, it is very desirable that the Student, on his arrival in London or one of the great provincial towns where Medical Schools are founded, should, if possible, be placed in the house of a Practitioner, or of a friend known to his family, or in one of the Collegiate establishments which have been appended to some of the Schools. By such a course innumerable temptations are avoided, the comforts of a home are enjoyed, erratic propensities are repressed, domestic habits are strengthened, friendly counsel of seniors is secured, and in most cases Professional instruction is imparted.

The habit of reading with a well-educated Practitioner who is able and willing to impart information is, perhaps, not so much adopted as it ought to be, and the advantages which it offers are not sufficiently appreciated. The formalities of apprenticeship are too often unattended with any advantage to the pupil, although this period of pupilage might be made most useful to the latter. The fact is, that the Collegiate and Hospital lectures, being usually delivered by men eminent in their respective departments, and addressed to senior as well as junior Students, are often above the comprehension of first year's pupils, who are not yet acquainted with even the technical language which is necessarily employed. A preliminary residence with a private Practitioner, who would make it his duty to instruct the pupil in the rudiments of anatomy, chemistry, and Materia Medica, would most materially facilitate the comprehension of the more enlarged themes which are to be subsequently expounded from the professorial chairs.

The ordinary course of instruction in the Medical Schools is comprised in a period of three years; but this should be considered the minimum amount of time to be expended in Hospital studies and lectures. The period has been so limited and defined, with a view, no doubt, to the pecuniary capabilities of Students on the one hand, and the exigencies of Medical and Surgical science on the other. A longer period would entail much greater expense upon the Student; a shorter term would be insufficient for the due reception of an adequate amount of knowledge. But in all cases where it is possible, we should recommend that four years should be spent in the Medical Schools instead of three, by which means opportunities will be afforded for a more thorough acquaintance with the theory and practice of Medicine and Surgery than could be gained in the shorter period.

By the extension of the term, also, facilities would be afforded for the attendance upon lectures and courses of instruction, which, although not included in the ordinary *curricula* of the examining bodies, will be found of great

advantage to the future success of the Student. We should particularly refer to the subject of Comparative Anatomy, which, although illustrated by the genius of Cuvier in France, and of Grant and Owen in our own country, has hardly received from the rising members of our Profession the attention which its intrinsic importance demands. The subject of Pathology, too, first taught as a separate course by the late distinguished Sir Robert Carswell, and subsequently by his worthy successors, Dr. Walshe and Dr. Jenner, is still left in the English schools to be attended or not, at the option of the Student; the Medical Examining Boards being probably unwilling to add to the expenses of Medical education. Courses of instruction on the uses of the microscope in medical diagnosis, and on the chemistry of the secretions and excretions, might also be attended with advantage if time permitted; and lectures on Natural Philosophy and Logic (which subjects are required by the Army Board) might be more generally attended if the period of study were prolonged.

The course of study usually pursued at the Schools of Medicine in London and the English provinces is that which is laid down by the College of Surgeons of England and the London Society of Apothecaries; the two curricula being so arranged that the student is able to attend both together with perfect facility. The diploma of the one and the licence of the other are jointly regarded as qualifications for what is called General Practice in England and Wales; and without offering any opinion upon the merit of the system laid down by the Examining Boards of these two Corporations, we should advise the student to conform to it in every respect. A compliance with these regulations can never entail any inconvenience, and can never interfere with any ulterior views of practice which the student may entertain; while a non-compliance with them may, in after life, involve consequences of vital importance, and lead to false steps, which it may be one day difficult to retrace. Whether the student intend to graduate in this or any other country; whether he intend to practise as a Physician, pure Surgeon, or General Practitioner; whether his views are directed to military or civil life—in any case, a conformity with existing regulations will promote his views, even although his plans may hereafter be changed. The periodical signature of the schedules by the professors and teachers affords a wholesome stimulus to regularity on the part of the students, and offers some kind of substitute, although a poor one, for the sessional examinations which we should wish to see established at all the Medical Schools, or by the Examining Boards themselves.

The Lectures which ought always to be attended during the first Winter Session are those upon Anatomy and Chemistry; and the student should resolve to make himself thoroughly acquainted with these two subjects, as essential and indispensable preliminaries to all other pursuits. Anatomy is the basis of Surgery and Medicine; and without Chemistry it is impossible to comprehend the physiological changes which are incessantly occurring in the human body, and equally impossible to understand the operation of medicinal agents, the preparation of drugs, or the detection of poisons. Above all things, let the student attend most diligently to the lectures and demonstrations on Anatomy; and when he goes home he should read over and correct, if necessary, the notes made in the lecture-room; and by the aid of the bones, which he should always have near him, he should study the relation of the soft parts to the solid framework. When he has made himself well acquainted with osteology, he should begin to dissect, and by the help of the demonstrator in the dissecting-room, some good Manual on practical anatomy, and the bones, he should make himself master successively of all the regions of the body. When this study has been diligently pursued during the first winter session, it may be relinquished, unless under special circumstances, until the second. Much will have been forgotten during the interval, and much will have been imperfectly learned; but the renewal of the study will fix every point upon the memory, until, in the course of time, the details of anatomy will become indelibly impressed upon the mind, and become, as it were, a part of the psychical existence. The best books for the student of Anatomy are Wilson's Anatomist's Vade Mecum, which will give him an excellent view of the whole subject, illustrated by numerous well-executed drawings; Ellis's Demonstrations of Anatomy, which work describes the anatomy of the separate regions, and should be taken into the dissecting-room, and studied with the scalpel in hand; and Quain and Sharpey's Anatomy, which is a complete treatise upon the structure of the human body.

The lectures on Chemistry should be attended with almost equal diligence to that bestowed upon Anatomy; and the student should recollect, that if he fail to acquire a competent knowledge of chemistry during his first session, he will have but little opportunity, generally speaking, of repairing the omission, for only one winter course of chemistry is required by most of the examining boards; although some very properly insist that a course of Practical Chemistry, in which the student makes his own experiments under proper guidance, shall follow the theoretical lectures. We should recommend the student, in all cases where the extra time and money are not serious obstacles, to attend at least two winter courses of chemistry; and, from the extensive nature of the subject, and the fascinations attending its pursuit, it will be found that the time and, the money have been well spent. For the first year's student, Fownes's Manual of Chemistry, which is brought up to the level of the science of the present day by its successive editors, will prove a very useful companion; although we advise the pupil not to be satisfied with this work, but if possible to consult in addition, the standard works of Graham, Brande, Liebig, and Faraday upon this subject. Reading, however, and attending lectures will not suffice to make a chemist; and it will be advisable, by means of a small and economical apparatus of a few test-tubes, corks, spirit-lamp, and some ordinary tests, that the student should make himself practically acquainted with the leading principles of chemical science.

Physiology is primarily based upon a thorough knowledge of anatomy and chemistry, and it describes the phenomena of life in all the realms of animated nature. This comprehensive but ever varying science changes from year to year, and from day to day, as new experiments develope new truths, or as the microscope detects new objects or new relations of parts. Anatomy teaches healthy structure, Physiology teaches healthy function; and these subjects very appropriately precede the study of morbid structure and functions, which form the domain of Medicine and Surgery.

Some authorities maintain that the study of Clinical Medicine and Surgery should be commenced in the first year of the student's career; but our own opinion is that, although there can be no objection to an attendance in the wards of the Hospital at all periods, yet there is no positive advantage in seeing operations and attending clinical instruction before some considerable insight has been gained into Anatomy, Physiology and Chemistry. A frequent attendance at operations will undoubtedly dissipate the unpleasant feelings which many sensitive youths experience at the sight of human suffering, but it is only when the nicetics of anatomy have been acquired, that the skill and dexterity of the surgeon in resecting joints, in tying arteries, in overcoming strictures, in performing plastic operations, and in other similar proceedings, can be duly appreciated; and on the other hand, unless there be a due acquaintance with visceral anatomy, with the ordinary reactions of chemistry, and with healthy function

the clinical lectures on the signs obtained by auscultation and percussion, on the chemical characters of the secretions and excretions, and on the microscopic characters of morbid growths, cannot be followed with much profit. Nevertheless, the student should keep his eyes open and his ears attentive to all that is passing around him, and if he do not understand what he hears and sees in the Hospital during his first session, he will have better success in the second.

The great end of all our studies is, after all, to obtain a thorough acquaintance with the nature of disease, and with the means for opposing it which Art and Science have placed at our disposal. Therefore, let our young friends after they have duly stored their minds with the subjects we have just indicated, commence in earnest the study of Medicine and Surgery, and after their first Session, if not before, let them watch incessantly what is going on in the Hospital wards, in the dead-house, and in the operating theatre; making copious notes of all that they witness. Every one should aim at becoming, in his turn, a Dresser or a Clinical Clerk, in which capacities he will have the patients partially under his control, and always under his close observation; and the arrangements at most of our Medical Schools offer easy opportunities for the gratification of such a legitimate ambition. Under all circumstances, but especially at the present time when the exigencies of war are calling many young Surgeons into the public service, it is most essential that a *practical* knowledge of Surgical manipulation should be obtained; and no Student should be satisfied with himself till he has not only thoroughly dissected the human body, but until he has performed all the principal operations upon the dead subject, and all the minor ones, at least, upon the living. It would be dreadful to feel that a deficiency of anatomical knowledge, or of manual dexterity, might endanger the life of a fellow-creature who is brought to the Surgeon for efficient assistance upon the field of battle, where ignorance or hesitation might do irreparable mischief.

The opportunities for clinical study are now so extensive in all our great Hospitals that there can be no excuse for the Student in neglecting this most important branch of Medical education. The theoretical lectures on Medicine and Surgery should be duly impressed upon the memory, because they present the great principles of our art in a systematic form; but it is from the actual study of disease as it exists from day to day in the wards of the Hospital that the stores of experience can be gained, from which the practitioner will in after times largely draw his methods of diagnosis and treatment. It is also during the period of pupilage that the education of the senses must be commenced, if not accomplished: the eye must be accustomed to the aspects of disease; the ear must be familiarised with the evidence derivable from auscultation and percussion; the touch must be rendered capable of distinguishing the healthy and morbid conditions of organs which are concealed from view; and micro-chemistry must be brought in aid of the human faculties when the latter are insufficient.

We wish it were in our power to indicate any books which might be employed as text-books in Medicine and Surgery; but the progress of Medical science has been so rapid, and its domain has become so extensive, that it is hopeless to look for any work which can embrace all that a student ought to know. He must, therefore, trust in a great measure to the records of his own experience derived from the Hospital, and to the instructions of the Physicians and Surgeons; and he must seek in special treatises for guidance in the knowledge of diseases and injuries. Dr. Watson's Lectures may still be safely recommended as containing an admirable epitome of Medical Practice, but the last edition has been long out of print; and Cooper's First Lines of Surgery is a book which was excellent in its time, but is now somewhat below the level of surgical practice in the present day. In Surgery, Druitt's Vade Mecum, Fergusson's Practical Surgery, and Erichsen's Art and Science of Surgery are standard books, and may all be consulted with advantage.

While thus advocating a persevering devotion to the practical study of Medicine and Surgery, in which of course we include Midwifery, we would advise the student to fill up his spare time with the pursuit of those accessory sciences which are more or less connected with Medicine, and which are moreover exceedingly well calculated to enlarge the powers of his mind, and expand his views of Nature and of Providence. We allude to such studies as Natural History, including Botany and Natural Philosophy. These subjects may occupy the intervals occurring between the Winter Sessions, and will afford not only an agreeable relaxation, but may become of great service in after life. The public cannot appreciate a Medical man's knowledge of anatomy and surgery, his skill in diagnosis, or his judgment in practice; but the educated part of the community can estimate his general attainments and his attachment to science, and according to his proficiency in these respects will he be esteemed in society, or the reverse. It must also be recollected that in the career of every man there must be moments of leisure, especially when he is commencing practice; of course during his intervals of relaxation; and when he retires from the Profession, if he should ever be enabled to do so. Under any of these circumstances the pursuits of general science will form a delightful occupation and solace to the mind, and prevent that sense of weariness and discomfort which uneducated or partially educated persons must endure when thrown out of the beaten track of their ordinary occupations. Besides all these arguments, there are others which may be drawn from motives of interest; for as Medical men spread themselves over the surface of the globe in our fleets and armies, they are always regarded as competent authorities on all matters relating to general science; and proficiency in this respect in the Army, the Navy, the East India Company's service, and other special services, is often attended with substantial rewards.

Again we say to the student, make the best use of your time; much of the period allotted to you for lectures and hospital practice, short as it is, is often lamentably wasted; take warning, therefore, from those who have misspent the opportunities of their youth, and be careful to avoid their example; study everything that is useful and ennobling, not neglecting the elegant accomplishments, but shunning all that is useless and degrading; let even your leisure hours be spent in something profitable, or at least innocent; and if you follow this advice, humbly relying on Providence and making good use of such faculties as may have been bestowed upon you, you will become successful Physicians or Surgeons, and honourable and estimable members of society.

THE INTRODUCTORY LECTURES.

(The Winter Session commences this year on Oct. 1, ending 31st of March. The Summer Session begins May 1, lasting to the middle or end of July.)

King's College	Dr. Johnson.
University College	
St. Bartholomew's Hospital	Dr. Kirkes.
St. Thomas's Hospital	Dr. Brinton.
Guy's Hospital	Dr. Owen Rees.
Westminster Hospital	Dr. Radcliffe.
St. George's Hospital	Dr. Fuller.
London Hospital	Mr. Wordsworth.
Middlesex Hospital	Dr. H. Thompson.
Charing-cross Hospital	Mr. E. Canton.
St. Mary's Hospital	Mr. Lane.
School of Medicine adjoining St. George's	Dr. Richardson.

RULES AND REGULATIONS

OF

EXAMINING MEDICAL BODIES

IN

ENGLAND.

SESSION 1857—1858.

UNIVERSITY OF OXFORD.

OFFICERS, 1857.

Chancellor.—The Earl of Derby, D.C.L.
High Steward.—The Earl of Devon, D.C.L.
Vice-Chancellor.—R. L. Cotton, D.D., Provost of Worcester.
Registrar.—Edward Wetherell Rowden, M.A., late Fellow of New College.

PROFESSORS.

Regius Professor of Medicine.—J. A. Ogle, M.D., Trinity.
Sherardian Professor of Botany.—C. G. B. Daubeny, M.D. Fellow of Magdalen.
Lichfield's Professor of Clinical Medicine.—J. A. Ogle, M.D.
Aldrichian Professor of Anatomy.—J. A. Ogle, M.D.
Chemistry.—C. G. B. Daubeny, M.D.
Lee's Lecturer in Anatomy.—H. W. Acland, M.D.

FOR DEGREES IN ARTS.

By those who have not taken any degree in Arts, Michaelmas and Hilary terms are each kept by six weeks' residence, and Easter and Trinity terms by three weeks' each.

A residence of three weeks in each term is sufficient for Bachelors of Arts keeping terms for a Master's degree.

Sixteen terms are required for the degree of Bachelor of Arts, from all except the sons, and eldest sons of the eldest sons, of Peers, etc. But of these sixteen terms, the day of Matriculation, if it be in term, counts for one, and the day of admission to a Bachelor's degree for another, and two more may be dispensed with by Congregation; so that, in point of fact, residence for twelve terms only is necessary.

Bachelors of Arts proceed to their M.A. degree in the twenty-seventh term (in the privileged cases twenty-third) from their Matriculation, provided they have kept three weeks' residence after their B.A.

FOR DEGREES IN MEDICINE.

For the degree of Bachelor in Medicine, three years' or twelve terms' residence are necessary, as in the case of candidates for degrees in Arts, with whom they must undergo a public examination, after which three years further are necessary.

A B.M. enjoys the same privilege with the B.C.L. in reference to his M.A. degree.

For a Doctor's degree, three whole years after the Bachelor's are required.

FOR DEGREES IN THE SUPERIOR FACULTIES SUBSEQUENT TO THAT OF MASTER OF ARTS.

The following is the time requisite for degrees in the faculty of Medicine subsequent to that of Master of Arts, all of which date the commencement of the reckoning from the period of regency.

For the degree of Bachelor in Medicine, without proceeding through Arts, all students in that faculty are eligible when they have completed twenty-eight terms from the day of Matriculation; and for a Doctor's, three years must intervene from the time of the candidate's having taken his Bachelor's degree.

UNIVERSITY FEES.

1. *At Matriculation.*—For a Servitor, or Bible-Clerk, 10*s.* For a Nobleman, or the eldest son of a Peer, 8*l.* For privileged persons (according to Stat. tit. vi. 5, § 1), not claiming immunity, 5*l.* For all others, 2*l.* 8s. And for non-Academicians, 1*l.*

2. *At Graduation.*—For the degree of B.A., 7*l.* 10s. For the degree of M.A., 12*l.* For the degree of M.A., if he has been admitted to his B.C.L. degree before 29th September, 1855, 4*l.* 5s.; if after that time, 7*l.* For Bachelor in any of the superior faculties, 14*l.* For Doctor in any of the superior faculties, 40*l.* For Bachelor of Music, 5*l.* For Doctor in Music, 10*l.* For a degree by decree of Convocation, or granted to any in their absence, besides the usual fees, 5*l.* For degrees by accumulation, beyond the usual fees, 5*l.* If any M.A. or Doctor, after having quitted the University, shall wish to return, he shall reside twenty-one days in any one Term, and pay a fee of 10*l.* unless he would prefer to pay up the fees due from the time of his leaving the University. If he shall not reside, 20*l.*

3. *Incorporation Fees.*—B.A., 8*l.*; M.A., 15*l.*; Bachelor in any of the superior faculties, 15*l.*; Doctor in any superior faculty, 40*l.*; B. Mus., 5*l.*; D. Mus., 10*l.* For a Diploma, beyond the usual fees, 10*l.* 10s.

4. *Fees ad eundem*, 1*l.* Besides the above, every member of the University pays 1*l.* 6s. annually, in four quarterly payments, as University dues. In lieu, however, of this payment, all members having graduated, may at their option compound for all such dues on the following scale, viz.:—If he have not exceeded his 25th year, 22*l.* 15s.; 30th, 21*l.* 15s.; 35th, 20*l.* 12s. 6d.; 40th, 19*l.* 8s. 6d.; 45th, 18*l.*; 50th, 16*l.* 7s. 6d.; 55th, 14*l.* 15s.; 60th, 13*l.* 1s. 6d.; 70th, 9*l.* 6s. 6d.

5. *Fees at Examination.*—All Undergraduates are called upon to pay fees on entering their names for their respective Examinations; viz., for Responsions, 20s.; the First Public Examination, 21s.; the Final Examination, 21s.; for admission into any second school, 10s.; for Examination in Civil Law, 20s.; and in Medicine, 20s.

EXERCISES FOR DEGREES IN MEDICINE.

All Students (besides undergoing the same examination appointed for Bachelors of Arts) are to be examined by the Regius Professor of that faculty and two examiners, of the degree of Doctor in Medicine, who are appointed by the Vice-Chancellor, in the theory and practice of Medicine, in Anatomy, Physiology, and Pathology; in the Materia Medica, as well as in Chemistry and Botany, so far as they illustrate the science of Medicine, and in two at least of the following ancient Medical writers—Hippocrates, Aretæus, Galen, and Celsus. For a Doctor's degree in Medicine, a dissertation upon some subject, to be approved by the Professor of Medicine, is to be publicly recited in the Schools, and a copy of it afterwards delivered to the Professor.

EXAMINATIONS FOR DEGREES IN ARTS.

All Undergraduates must pass three public trials before they proceed to their B.A. degree; as follow:—

Responsions to be holden three times in each year [*i. e.*, 5th of December; Monday after the 4th Sunday in Lent; Thursday after the first Sunday after Trinity]; and to be passed in the third to the seventh term inclusive.

Subjects.—One Latin, one Greek author, or a portion of each; the chief object being to ascertain that the principles of these two languages are well understood. Arithmetic (which will be required of all), Euclid, or Algebra.

UNIVERSITY OF CAMBRIDGE.

OFFICERS, 1857.

Chancellor.—His Royal Highness Prince Albert, LL.D., Trinity.
High Steward.—Lord Lyndhurst, LL.D., Trinity.
Vice-Chancellor.—William Whewell, D.D., F.R.S., Trinity.
Registrar.—Joseph Romilly, M.A., Trinity.
Annual Officer—Caput—*in Physic*—Dr. Bond.

PROFESSORS.

Regius of Physic.—Henry J. Hayles Bond, Corpus.
Chemistry.—J. Cumming, M.A., F.R.S., Trinity.
Anatomy.—William Clark, M.D., F.R.S., Trinity.
Botany.—Rev. J. S. Henslow, M.A., F.L.S., John's.
Downing Professor of Medicine.—W. W. Fisher, M.D., Down.
Linacre Lecturer on Physic.—G. E. Paget, M.D.

PROCEEDINGS IN PHYSIC.

BACHELOR OF MEDICINE.

A student before he can become a Bachelor of Physic must have entered on his sixth year, computed from the date of his first admission at the University, have resided nine terms (a), and have passed the previous examination.

A Bachelor of Arts may become a Bachelor of Physic after having entered on his sixth year, computed from the date of

(a) To fulfil the three terms in the year, the residence required is twenty-five weeks.

his first admission at the University, provided that one year at least has intervened between his final determination in Arts, and his admission to the degree of Bachelor of Physic.

The exercises for this degree are one Act and one opponency.

Candidates for the degree of Bachelor of Physic must, previously to the performance of these exercises, in addition to the examination by the Regius Professor of Physic, be examined by the Professors of Anatomy, Chemistry, and Botany, and the Downing Professor of Medicine. The examinations by the Professors of Chemistry and Botany may take place in the fourth year after admission. The other part of the examination may take place in the fifth year after admission, but not earlier. They must have diligently attended the lectures of the Regius Professor of Physic for two terms, and must bring to him certificates of examination by the above Professors, and of attendance on their lectures, in case the course of lectures of the Professor of Botany consist of not less than twenty lectures, and the courses of lectures of the Professors of Anatomy and Chemistry, and of the Downing Professor of Medicine of not less than fifty lectures each. They must also deliver to the Regius Professor of Physic certificates of having been diligently employed in attendance on medical lectures and the practice of some known hospital for two years, or for as long a time as they have been absent from the University during their undergraduateship.

Every candidate for the M.B. degrees pays the Professor £7 for his Act.

If, on or before the 1st February in his fourth year, the candidate for LL.B. or M.B. does not declare, in writing, to the Master of his College, that it is not his intention to proceed to B.A., he forfeits £3 to the University Chest, over and above the usual fees; and if, after this declaration, he proceeds to B.A., he also pays £3 extra to the Senior Proctor.

LICENTIATE IN MEDICINE.

A licence *ad practicandum in Medicinâ* may be granted to a Bachelor of Physic in the term subsequent to that in which he has taken the degree, or to a Master of Arts of two years' standing. Candidates for a licence *ad practicandum in Medicinâ*, being previously Bachelors of Physic, are required to produce to the Regius Professor of Physic certificates of their having attended on hospital practice for three years exclusive of the nine terms which they kept by residence for the degree of Bachelor of Physic, and of their having attended lectures on the following subjects, namely:—Practice of physic and pathology, anatomy, and physiology, chemistry and botany, medical jurisprudence, materia medica and pharmacy, principles of surgery, principles of midwifery, practical anatomy for two seasons. Candidates for a licence *ad practicandum in Medicinâ*, being previously Masters of Arts, are required to bring satisfactory evidence to the Regius Professor of Physic of their having been employed in the study of physic for five years after they became Bachelors of Arts, and to produce to him certificates of their having attended on hospital practice for three of the said five years, and of their having attended lectures on the subjects before mentioned. Every candidate for a licence *ad practicandum in Medicinâ* is required to pass an examination to the satisfaction of the Regius Professor of Physic, the Professor of Anatomy, the Downing Professor of Medicine, and a Doctor of Physic, to be nominated by the Vice-Chancellor, and approved by the Senate at the first congregation after the 10th of October in each year. There are two such examinations in every year; one in the week immediately preceding that in which the division of the Michaelmas term falls; the other in the week immediately preceding that in which the division of Easter term falls. A candidate for a licence *ad practicandum in Medicinâ*, being previously Bachelor of Physic, cannot be examined for the said licence until the examination which shall occur next but one after his having passed the examination required for the degree of Bachelor of Physic. A student who has declared for law or physic, may put on a full-sleeved gown, when those of the same year, who go out at the regular time, have taken their degree of Bachelor of Arts. He is then styled a Harry-Soph (*ερισοφος*).

DOCTOR IN MEDICINE.

The degree of Doctor of Physic is granted to a Bachelor of Physic of five years, or to a Master of Arts of seven years' standing. The exercises for this degree are two acts and one opponency. Every candidate for the degree of Doctor of Physic, who has not previously obtained a licence *ad practicandum in Medicinâ*, is required to produce to the Regius Professor of Physic the same certificates and pass the same examination as are required in the case of candidates for a licence *ad practicandum in Medicinâ*.

The following Table of Average Expense, regularly incurred by the student, is calculated for one of the Colleges. The difference is not much at any other College:—

	£	s.	d.
Annual.			
Tuition	10	0	0
Rooms, Rent	10	0	0
Attendance, Assessed Taxes, etc.	6	5	0
Coals	3	10	0
College Payments	5	7	4
Cost of Living.			
Breakfast, Dinner, and Tea, at 16s. 6d. a-week for twenty-five weeks, making the average three terms' residence in the year	20	12	6
Laundress	5	8	0
	£61	2	10

Rent of rooms varies in the several Colleges from 4*l.* to 30*l.*; price of lodgings, 8s. to 28s. per week; the most frequent payment is 14s. or 16s.; and half-price is paid in vacations. Entertainment in rooms, attendance of a gyp, orders in the hall, are extra and optional. Private tuition is for the most part 14*l.* or 7*l.* a term. Personal expenses and tradesmen's bills are independent of the place; they are paid by the student himself, or through the tutor, as may be found expedient.

ADDENBROOKE'S HOSPITAL

was opened in the year 1776, and contains upwards of 100 beds. Certificates of attendance on the practice in it are recognised by the University, by the Royal Colleges of Physicians and Surgeons, and by the Society of Apothecaries in London. During term clinical lectures are delivered weekly by the Physicians, and a course of lectures on the Principles of Surgery by Mr. Humphry, the certificate of attendance on which is received of candidates for L.M.

Physicians.—Henry J. H. Bond, M.D.; G. E. Paget, M.D.; William W. Fisher, M.D.

Consulting Surgeon.—John Okes, Esq., F.R.C.S.

Surgeons.—Charles Lestourgeon, M.A., F.R.C.S.; Josiah Hammond, F.R.C.S.; George M. Humphry, F.R.C.S.

Fees.—For attendance on the medical and surgical practice and the lectures:—

For 6 months	Eight guineas.
12 months	Ten guineas.
An unlimited period	Fifteen guineas.

THE UNIVERSITY LIBRARY

contains more than 170,000 volumes. It is open on Saturdays from ten till one; and on other days from eleven till four.

THE ANATOMICAL MUSEUM.

This rich and interesting collection is under the care and superintendence of the Professor of Anatomy for the time being. It is used by him and by the Regius Professor of Physic for the illustration of their respective lectures. The Museum is at all times open to the Regius Professor of Physic, to the other Professors of Medicine or Natural Science, to Doctors and Bachelors of Physic, and to all students attending the lectures of the Regius Professor of Physic, and of the Professor of Anatomy, or of any of the above-described Professors, from eleven to twelve every day, with the exception of Sundays, Christmas-day, and Good Friday. It is also open to all Graduates from two till three on Tuesdays, Thursdays, and Saturdays.

THE LONDON UNIVERSITY.

Visitor.—Her Majesty the Queen.

Chancellor.—The Right Honourable the Earl Granville, F.R.S.

Vice-Chancellor.—Sir John George Shaw Lefevre, K.C.B., M.A., F.R.S.

Registrar.—William Benjamin Carpenter, M.D., F.R.S.

Clerk to the Senate.—Mr. H. Moore.

EXAMINERS.

Medicine.—Archibald Billing, Esq., M.D., M.A., F.R.S.; and Alexander Tweedie, Esq., M.D., F.R.S.

Surgery.—W. Fergusson, Esq., F.R.S., Sir Stephen Love Hammick, Bart.

Anatomy and Physiology.—Francis Kiernan, Esq., F.R.S., and William Sharpey, M.D., F.R.S.

Physiology and Comparative Anatomy.—Thomas H. Huxley, Esq., F.R.S.

Midwifery.—Edward Rigby, Esq., M.D.

Chemistry.—Professor Brande, D.C.L., F.R.S.

Botany.—The Rev. Professor Henslow, M.A.

Materia Medica and Pharmacy.—George Owen Rees, Esq., M.D., F.R.S.

BACHELOR OF MEDICINE.

Candidates for the Degree of Bachelor of Medicine shall be required:—1. To have been engaged during four years in their professional studies at one or more of the Institutions or Schools recognised by this University. 2. To have spent one year at least of the four in one or more of the recognised Institutions or Schools in the United Kingdom. 3. To pass two examinations.

First Examination.—The first examination shall take place once a year, and commence on the first Monday in August (a). No candidate shall be admitted to this examination unless he have produced certificates to the following effect:—1. Of having completed his nineteenth year. 2. Of having taken a degree in Arts in this University, or in a University the degrees granted by which are recognised by the Senate of this University (b); or of having passed the Matriculation examination (c). 3. Of having been a student during two years at one or more of the Medical Institutions or Schools recognised by this University, subsequently to having taken a degree in arts, or passed the Matriculation examination. 4. 5, 6, 7. (See TABLE OF REQUIREMENTS, page 324.) These certificates shall be transmitted to the Registrar at least fourteen days before the examination begins. The fee for this examination shall be 5*l.* No candidate shall be admitted to the examination unless he have previously paid this fee to the Registrar. If a candidate fail to pass the examination, the fee shall not be returned to him; but he shall be afterwards admissible to the first examination without the payment of any additional fee. (For subjects of Examination, see TABLE OF REQUIREMENTS, page 324.) The candidate shall also be required to translate passages from the Latin Pharmacopœia.

EXAMINATION FOR HONOURS.

Any candidate who has been placed in the first division at the first examination may be examined for honours in any or all of the following subjects:—Anatomy and Physiology. (Candidates may illustrate their answers by sketching the parts they describe.) Chemistry, Materia Medica and Pharmaceutical Chemistry, Structural and Physiological Botany. The examinations shall take place in the week following the commencement of the first examination. [They shall be conducted by means of printed papers; but the examiners shall not be precluded from putting *vivâ voce* questions upon the written answers of the candidates when they appear to require explanation. In determining the relative position of candidates, the examiners shall have regard to the proficiency evinced by the candidates in the same subjects at the pass examination. Candidates who pass the examinations, and acquit themselves to the satisfaction of the examiners, shall be arranged according to the several subjects, and according to their proficiency in each; and candidates shall be bracketed together, unless the examiners are of opinion that there is a clear difference between them.] If in the opinion of the examiners sufficient merit be evinced, the candidate who shall distinguish himself the most in anatomy and physiology, the candidate who shall distinguish himself the most in chemistry, and the candidate who shall distinguish himself the most in Materia Medica and pharmaceutical chemistry, shall each receive an exhibition of 30*l.* per annum for the next two years. Under the same circumstances, the first and second candidates in each of the preceding subjects shall each receive a gold medal of the value of 5*l.* Under the same circumstances, the candidate who shall distinguish himself the most in structural and physiological botany shall receive a gold medal of the value of 5*l.*

(a) The annual number of examinations will be increased at a future period, should it be found desirable.

(b) The Degrees in Arts of all Universities in the United Kingdom are recognised by the Senate for this purpose.

(c) The Matriculation Examination is the same for Students in Arts as Students in Medicine.

SECOND EXAMINATION.

The second examination shall take place once a-year, and commence on the first Monday in November. No candidate shall be admitted to this examination within two academical years of the time of his passing the first examination, nor unless he have produced certificates to the following effect:—1. Of having passed the first examination. 2, 3, 4, 5, 6, 7, (see TABLE OF REQUIREMENTS, p. 324.) Certificates on Practical Medicine will be received from any legally-qualified Practitioner having the care of the poor of a parish. The candidate shall also produce a certificate of moral character from a teacher in the last school or institution at which he has studied, as far as the teacher's opportunity of knowledge has extended. These certificates shall be transmitted to the Registrar at least fourteen days before the examination begins. The fee for this examination shall be 5*l.* No candidate shall be admitted to the examination unless he have previously paid this fee to the Registrar. If a candidate fail to pass the examination, the fee shall not be returned to him; but he shall be afterwards admissible to the second examination without the payment of any additional fee. (For subjects of examination see TABLE OF REQUIREMENTS, p. 324.) The candidate shall also be required to translate passages of the Latin Pharmacopœia into English, and of the English Pharmacopœia into Latin. On Monday morning in the week following the examination, the examiners shall arrange in two divisions, each in alphabetical order, such of the candidates as have passed. And a certificate, under the seal of the University, and signed by the Chancellor, shall be delivered to each candidate. Such candidates only as in the opinion of the examiners are admissible to the Examination for Honours, shall be placed in the first division.

EXAMINATION FOR HONOURS.

Any candidate who has been placed in the first division at the second examination may be examined for Honours in any or all of the following subjects:—Physiology and Comparative Anatomy. Candidates may illustrate their answers by sketching the parts they describe. Surgery, Medicine, Midwifery. The examination shall take place in the week following the second examination. (The same regulations follow here as in the examination in Honours at the first examination.) If, in the opinion of the examiners, sufficient merit be evinced, the candidate who shall distinguish himself the most in Physiology and Comparative Anatomy, the candidate who shall distinguish himself the most in Surgery, and the candidate who shall distinguish himself the most in Medicine, shall each receive an exhibition of 50*l.* per annum for the next two years, with the style of University Medical Scholar. Under the same circumstances, the first and second candidates in each of the preceding subjects shall each receive a gold medal of the value of 5*l.* Under the same circumstances, the candidate who shall distinguish himself the most in Midwifery shall receive a gold medal of the value of 5*l.*

DOCTOR OF MEDICINE.

The examination for the degree of Doctor of Medicine shall take place once a year, and commence on the fourth Monday in November. No candidate shall be admitted to this examination unless he have produced certificates to the following effect:—1. Of having taken the degree of Bachelor of Medicine in this University, or a degree in Medicine or in Surgery at a University the degrees granted by which are recognised by the Senate of this University (a). Those candidates who have not taken the degree in this University shall produce a certificate of having completed their twenty-third year. 2. Of having attended, subsequently to having taken one of the above degrees in Medicine: *a.* To Clinical or Practical Medicine during two years in an Hospital or Medical Institution recognised by this University. *b.* Or, to Clinical or Practical Medicine during one year in an Hospital or Medical Institution recognised by this University, and of having been engaged during three years in the practice of his Profession. *c.* Or, if he have taken the degree of Bachelor of Medicine in this

(a) At present, all candidates for the degree of Doctor of Medicine must have previously obtained the degree of Bachelor of Medicine in this University.

University, of having been engaged during five years in the practice of his Profession. One year of attendance on Clinical or Practical Medicine, or two years of practice, will be dispensed with in the case of those candidates who at the second examination have been placed in the first division. 3. Of Moral Character, signed by two persons of respectability. These certificates shall be transmitted to the Registrar at least fourteen days before the examination begins. The fee for the degree of Doctor of Medicine shall be 10*l*. No candidate shall be admitted to the examination unless he have previously paid this fee to the Registrar. If a candidate fail to pass the examination, the fee shall not be returned to him; but he shall be admissible to any subsequent examination for the same degree without the payment of any additional fee. The examination shall be conducted by means of printed papers and *vivâ voce* interrogation. Candidates shall be examined in the following subjects:—Elements of Intellectual Philosophy, Logic, and Moral Philosophy, Medicine.

REGULATIONS RELATING TO PRACTITIONERS IN MEDICINE OR SURGERY DESIROUS OF OBTAINING DEGREES IN MEDICINE. (a)

BACHELOR AND DOCTOR OF MEDICINE.

BACHELOR OF MEDICINE.

Candidates shall be admitted to the two examinations for the degree of Bachelor of Medicine on producing certificates to the following effect:—1. Of having been admitted prior to the year 1850 members of one of the legally-constituted bodies in the United Kingdom for licensing Practitioners in Medicine or Surgery; or, of having served previovsly to 1840 as Surgeons or Assistant-Surgeons in Her Majesty's Army, Ordnance, or Navy, or in the service of the Honourable the East India Company. 2. Of having received a part of their education at a recognised Institution or School, as required by the charter of the University. 3. Of moral character, signed by two persons of respectability. Candidates who have not taken a degree in arts, or passed the matriculation examina- in this Uuniversity, will be required to translate a portion of Celsus *de Re Medicâ*.

DOCTOR OF MEDICINE.

Candidates who have been engaged during five years in the practice of their Profession shall be admitted to the examination for this degree on producing certificates to the following effect:—1. Of having been engaged during five years in the practice of their Profession. 2. Of having taken the degree of Bachelor of Medicine in the University. Candidates who have not taken a degree in Arts, or passed the matriculation examination in this University, will be required to translate a portion of Celsus *de Re Medicâ*.

UNIVERSITY OF DURHAM.

Warden.—The Venerable Charles Thorp, D.D., F.R.S.
Reader in Medicine.—Dennis Embleton, M.D., F.R.C.S.
Reader in Natural Philosophy.—R. B. Hayward, M.A.
Lecturer in Chemistry.—T. Richardson, M.A.
Registrar.—The Rev. T. Chevalier, B.D.

Students who matriculate at the University of Durham must procced in the first place to a licence in Medicine, then to the degrees of Bachelor and Doctor of Medicine in that University. The course required for students in Medicine is as follows:—One year's residence in the University, and attendance on lectures similar to those given to students in Arts in their first year. At the end of the year all students must pass an examination in the rudiments of religion, literature, and science. Students who have passed their first examination, must afterwards pursue their studies for three years, either in the University or in a school of Medicine in the United Kingdom which has been received into connexion with the University by Convocation. Licentiates may proceed to the degrees of Bachelor and Doctor of Medicine, by performing such exercises as the warden and senate of the University of Durham shall appoint; such licentiates being of the standing of twenty-one terms from the date of matriculation for the degree of Bachelor, and of thirty-three terms for the degree of Doctor in Medicine. Any student in Arts who has passed the first examination for the degree of Bachelor of Arts may proceed as a student in Medicine of the second year. Any student who has passed the examinations for the degree of Bachelor of Arts is admissible to the final examination in Medicine without passing the former examination appointed for students in Medicine, and without further residence in the University or in a medical school, provided he shall have produced certificates of having attended the requisite medical leetures and hospital practice.

a) All these Regulations are applicable exclusively to Practitioners who obtained their Licenses or Commissions prior to 1840.

ROYAL COLLEGE OF PHYSICIANS, LONDON.

President.—Dr. Thomas Mayo.
Censors.—Drs. Jeaffreson, Pitman, Benee Jones, and Risdon Bennett.
Elects.—Drs. Thomas Turner, Clement Hue, John Bright, Henry Herbert Southey, Francis Hawkins, James Alderson, and Henry S. Roots.
Treasurer.—Dr. Alderson.
Registrar.—Dr. F. Hawkins.

According to the Regulations of this College, no one will be admitted as a candidate for the licence or extra licence, unless he shall have attained the age of six-and-twenty, and shall present a certificate of good moral conduct. His medical education must comprise anatomy, the theory and practice of medicine, forensic medicine, chemistry, materia medica, natural history (particularly botany), midwifery, and the principles of surgery, and must extend over the period of five years. Practical medicine must be studied for three years in an hospital containing at least 100 beds, and having a complete staff of physicians and surgeons. Those who have studied abroad, in addition to giving proof of five years' medical education, according to the usual course of study, are required to present testimonials of a twelvemonth's attendance on medical practice at any Hospital in Great Britain, having the qualifications as above.

No one will be admitted as a licentiate (*permissus*) who is accustomed to use any secret medicine or nostrum in the treatment of disease, unless previously to his first examination he make known to the President and Censors its composition and the manner in which it is employed. Every candidate must undergo three examinations before the President and Censors. The first examination comprises physiology, the second pathology, and the third therapeutics. At the commencement of the first examination, the President may inquire of the candidate where he studied polite literature, and the principles of science, and what honours he has obtained, whether in philosophy, arts, or medicine, in order that the answers may be recorded by the registrar. The candidate may also be examined in Greek works on medicine,—to wit, Hippocrates, Galen, or Aretæus. Passages from the Aphorisms of Hippocrates or Galen will be brought forward during the first examination; and, during the second and third, passages from Hippocrates, Galen, or Aretæus, which must be translated into Latin, and illustrated with a brief commentary. If the candidate decline examination in Greek, he will be required to translate parts of Celsus or Sydenham, or some other Latin work on medicine, into English. The examinations are conducted in Latin or English, at the pleasure of the Censors.

Whenever a candidate has passed the prescribed examinations, and has been approved, he will be proposed at the next *comitia majora* (or meeting of the fellows at large) to be admitted as a licentiate; and, if the majority present consent, he will be admitted accordingly. If, however, the candidate be rejected, he cannot present himself for re-examination for a twelvemonth.

Before the licentiate is admitted, he is required to plight his faith to the College that he will obey its statutes, or pay the penalties imposed; and consult the honour of the College and the good of the public in all his medical practice.

If any one holding the licence of the College practise pharmacy afterwards, he is liable to expulsion; and any person practising medicine in London, or within seven miles thereof, without having previously obtained the College licence, is to be admonished by letter to cease his practice until after he has passed the required examinations; and if he continue to practise, despite this admonition, then *legibus regni obnoxius erit*.

Persons who have attained their fortieth year, seeking to become licentiates of the College, but whose medical education is not altogether in accordance with the regulations

already stated, must present very high testimonials of professional knowledge and good moral conduct, and, if these are satisfactory to the Censors, after a very strict scrutiny, the Censors may recommend to the College that they should be admitted to examination the same as for licentiates in general.

The old regulation restricting the fellowship ordinarily to the Graduates of Oxford and Cambridge, was repealed in the latter part of 1835; and after Easter, 1836, all candidates were declared to be admissible as licentiates only, from which class, when duly qualified, a certain number are to be annually elected fellows in *comitia majora;* none being eligible who have not been four years in the number of licentiates.

The President of the College is *ex officio* President of the Vaccine Board, a Trustee of the British and Hunterian Museums, and an elector to the Tancred Scholarships. The College also appoints the Sherardian Professor of Botany to the University of Oxford.

The examinations for the licence are conducted by the President and Censors. The periods at which they take place are Michaelmas, Christmas, Easter, and Midsummer. The new Censors are elected on the 25th of June. The lectures are delivered in the early part of the year. There are about nine delivered: three Gulstonian, three Croonian, and three Lumleian, so called from the names of those who left endowments to the College for the purpose. The museum and library are the property of the fellows, but licentiates may, if they desire it, be admitted to the use of the library, on payment of a small subscription.

The College fees are 56*l.* 17s. (including stamp-duty, 15*l.*) for the licence; fellowship, 55*l.* 1s. (including stamp-duty, 25*l.*); extra licence, 25*l.*

ROYAL COLLEGE OF SURGEONS OF ENGLAND,

Lincoln's Inn-fields.

President.—E. Stanley, Esq.

Vice-President.—J. H. Green, Esq.

The Council.—W. Lawrence, B. Travers, T. Tatum, Sir B. C. Brodie, Bart., C. Hawkins, J. Swan, J. M. Arnott, J. F. South, J. Luke, F. C. Skey, J. Hodgson, T. Wormald, J. Bishop, G. W. Mackmurdo, F. Kiernan, W. Coulson, G. Gulliver, R. Partridge, J. Hilton, R. Quain, E. Cock, and S. Solly, Esqs.

Court of Examiners.—B. Travers, E. Stanley, J. H. Green, W. Lawrence, J. M. Arnott, J. F. South, C. H. Hawkins, J. Luke, F. C. Skey, and J. Hodgson, Esqs.

Examiners in Midwifery.—E. Stanley, Esq., Dr. A. Farre, Dr. H. Oldham, and Dr. C. West.

Examiners for the Fellowships in Classics, Mathematics, and French.—G. Smith, G. G. Stokes, and I. Brasseur.

Professor of Anatomy and Physiology.—Prescott G. Hewett.

Professor of Comparative Anatomy.—G. Busk.

Hunterian Professor, Professor of Histology, & Conservator } John Thomas Quekett.

Assistant-Conservator.—T. H. Stewart.

Librarian.—John Chatto.

Secretary.—Edmund Belfour.

Clerk.—Thomas Madden Stone.

REGULATIONS OF THE COUNCIL

RESPECTING THE PROFESSIONAL EDUCATION OF CANDIDATES FOR THE DIPLOMA OF MEMBER OF THE COLLEGE.

I. Candidates will be required to produce the following certificates, viz.:—

1. Of being twenty-one years of age.

2. Of having been engaged during four years in the acquirement of professional knowledge.

3. Of having studied Practical Pharmacy during six months.

4. Of having studied Anatomy and Physiology, by attendance on lectures and demonstrations, and by dissections during three Winter Sessions.

5. Of having attended, during two Winter Sessions, Lectures on the Principles and Practice of Surgery.

6. Of having attended, during one Summer Session, Lectures on Materia Medica, and Lectures on Midwifery; Practical Midwifery to be attended at any time after the conclusion of the Session.

7. Of having attended at least one Course of Lectures on the Practice of Physic and one Course on Chemistry.

8. Of having attended at a recognised Hospital or Hospitals in the United Kingdom the Practice of Physic during one Winter (a) and one Summer (b) Session.

9. And of having attended, during three Winter and two Summer Sessions, the Practice of Surgery at a recognised Hospital or Hospitals in the United Kingdom.

10. And of having attended Clinical Lectures on Medicine and Surgery in conformity with the following Regulations of the Council:—

The certificates of attendance on the Medical practice of a Hospital, commencing on or after the 1st of October, 1854, must be accompanied by certificates of attendance on clinical lectures on Medicine during such attendance; and the certificates of attendance on the Surgical practice of a Hospital, commencing on or after the said 1st of October, 1854, must be accompanied by certificates of attendance on clinical lectures on Surgery during such attendance. Such courses of clinical lectures shall, in England and in the Colonies, consist of not less than one lecture on Medicine and one lecture on Surgery in each week during the Summer and Winter Sessions; and in Scotland and Ireland shall consist of such number of lectures as may be respectively required by the Royal Colleges of Surgeons of Edinburgh and Ireland. These lectures shall be additional to clinical instruction given in the wards, and shall have especial reference to cases at the time, or previously under observation in the Hospital.

The course of study hereby prescribed is required to be observed by candidates who shall have pursued their studies in Hospitals and Schools in England. Those candidates who shall have studied in Scotland are required to bring certificates of having attended lectures on the institutes of medicine during one Winter Session, and on Anatomy during two other Winter Sessions, and on demonstrations and dissections during three Winter Sessions (the foregoing regulations being in all other respects observed). Candidates who shall have attended Lectures on Materia Medica in the University of Dublin will be allowed to bring certificates of such attendance during the Winter Session.

II. Members or Licentiates of any legally constituted College of Surgeons in the United Kingdom, and Graduates in Surgery of any University requiring residence to obtain degrees, will be admitted for examination on producing their diploma, licence, or degree, together with proof of being twenty-one years of age, and of having been occupied at least four years in the acquirement of professional knowledge.

III. Graduates in Medicine of any legally constituted College or University requiring residence to obtain degrees, will be admitted for examination on adducing, together with their diploma or degree, proof of having completed the anatomical and surgical education required by the foregoing regulations, either at the school and hospital of the University where they shall have graduated, or at one or more of the recognised Schools and Hospitals in the United Kingdom.

IV. Candidates who shall have attended at recognised Colonial Hospitals and Schools (c) the medical and surgical practice and the several courses of lectures, with the demonstrations and dissections required by the foregoing regulations, will be admitted for examination upon producing certificates of such attendance, together with certificates of having attended in London, during one Winter Session, the Surgical practice of a recognised Hospital and Lectures on Anatomy, Physiology, and Surgery, with demonstrations and dissections.

V. Certificates will not be recognised from any Hospital unless the Surgeons thereto be members of one of the legally constituted Colleges of Surgeons in the United Kingdom; nor from any School of Anatomy and Physiology or Midwifery, unless the teachers in such school be members of some legally

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(a) The Winter Session comprises a period of six months, and in England commences on the 1st of October, and terminates on the 31st of March.

(b) The Summer Session comprises a period of three months, and in England commences on the 1st of May, and terminates on the 31st of July.

No provincial Hospital will be recognised by this College which contains less than 100 patients; and no Metropolitan Hospital which contains less than 150 patients.

(c) The recognition of Colonial Hospitals and Schools is governed by the same regulations, with respect to numbers of patients, to courses of lectures, and to physicians, surgeons, and lecturers, as apply to the recognition of Provincial Hospitals and Schools in England.

constituted College of Physicians or Surgeons in the United Kingdom; nor from any School of Surgery, unless the teachers in such School be members of one of the legally constituted Colleges of Surgeons in the United Kingdom.

VI. Certificates will not be received on more than one branch of science from one and the same lecturer; but anatomy and physiology—demonstrations and dissections—will be respectively considered as one branch of science; and in those Schools in Scotland or Ireland in which such division of those subjects is sanctioned by the College of Surgeons in each kingdom, the Institutes of Medicine,—anatomy, demonstrations, and dissections—may be separately certified.

VII. Certificates will not be received from candidates who have studied in London, unless they shall have registered their tickets at the College, as required by the regulations, during the last ten days of January, March, and October in each year; nor from candidates who have studied elsewhere, unless their names shall duly appear in the registers transmitted during such studies from their respective schools.

N.B. In the certificates of attendance on Hospital practice and on lectures, it is required that the dates of commencement and termination be clearly expressed; and no interlineation, erasure, or alteration will be allowed.

Blank forms of the required certificates may be obtained on application to the Secretary, to whom they must be delivered, properly filled up, ten days before the candidate can be admitted to examination; and all such certificates are retained at the College.

REGULATIONS OF THE COUNCIL

RESPECTING THE PROFESSIONAL EDUCATION OF CANDIDATES FOR THE CERTIFICATE OF QUALIFICATION IN MIDWIFERY.

1. Persons who were Fellows or Members of the College prior to the 1st day of January, 1853, will be admitted to Examination for the certificate of qualification in Midwifery upon producing their diploma.

2. Persons having become members of the College, subsequently to the 1st of January, 1853, will be admitted to examination on producing their diploma, together with a certificate or certificates of having attended twenty labours.

3. Members or Licentiates of any legally constituted College of Surgeons in the United Kingdom, and Graduates in Surgery of any University requiring residence to obtain degrees, will also be admitted to examination on producing, together with their diploma, licence, or degree, proof of being twenty-one years of age—of having been occupied four years in the acquirement of professional knowledge—of having attended one course of lectures on Midwifery—and of having attended not less than twenty labours.

4. Graduates in Medicine of any legally constituted College or University, requiring residence to obtain degrees, will also be admitted to examination on producing, together with their diploma or degree, proof of being twenty-one years of age; of having been occupied four years in the acquirement of professional knowledge; of having completed, at recognised schools, the anatomical and surgical education required of candidates for the diploma of member of the College; of having attended one course of lectures on Midwifery, and of having attended not less than twenty labours.

5. Persons having commenced their professional education, either by attendance on Hospital practice, or on lectures on anatomy, prior to the 1st of January, 1853, will be admitted to examination on producing the several certificates of professional education required for admission to examination for the diploma of member of this College at the period when such persons shall respectively have, in such manner, commenced their professional education.

6. Persons having commenced their professional education, either by attendance on Hospital practice, or on lectures on anatomy, after the 31st day of December, 1852, will be admitted to examination on producing certificates of being twenty-one years of age; of having been engaged during four years in the acquirement of professional knowledge; of having completed, at recognised schools, the professional education required of candidates for the diploma of member of this College; of having attended one course of lectures on midwifery and the diseases of women and children, and of having personally conducted thirty labours.

N.B. The fee for the certificate is as follows, viz.—1. Persons who were Fellows or Members of this College prior to the 1st of January, 1853, two guineas. 2. Persons admitted Fellows or Members of this College subsequently to the 1st of January, 1853, three guineas. 3, 4. Persons producing any other diploma or certificate of degree which may be considered by the Council to afford satisfactory proof of sufficient Surgical and Medical education, three guineas. 5, 6. All other persons, ten guineas.

ADMISSION OF MEMBERS TO THE FELLOWSHIP BY EXAMINATION.

Except in the cases and instances hereinafter provided for to the contrary, every candidate for the Fellowship, whether a member of the College or not, is required to produce certificates satisfactory to the Court of Examiners:—That he is 25 years of age. That he is (if found qualified upon examination) a fit and proper person to be admitted to the Fellowship, which certificate must be signed by three Fellows. That he has passed a preliminary examination in classics, mathematics, and French, appointed by the Council. That he has been engaged for six years in the acquirement of professional knowledge in recognised Hospitals or schools; and that not less than three Winter and three Summer Sessions thereof have been passed in one or more of such Hospitals in London. That he has studied Anatomy and Physiology by attendance on lectures and demonstrations, and by dissections during three Winter sessions of not less than six months each, at a recognised school or schools. That he has attended lectures on the theory and practice of Medicine, and on Clinical Medicine; and also on the theory and practice of Surgery, and on Clinical Surgery, during two sessions of not less than six months each, at recognised schools and Hospitals. That he has attended one course of lectures on each of the following subjects, viz., Chemistry, Materia Medica, Midwifery, with attendance on cases, Medical Jurisprudence, and Comparative Anatomy, at one or more recognised school or schools. That he has attended the Surgical Practice of a recognised Hospital or Hospitals during four Winter and four Summer Sessions, and the Medical practice of a recognised Hospital or Hospitals during one Winter and one Summer Session. That he has served the office of House-Surgeon or Dresser in a recognised Hospital in the United Kingdom. He is also required to present clinical reports, with observations thereon, of not less than six Surgical cases taken by himself at one or more recognised Hospital or Hospitals in the United Kingdom, with satisfactory evidence of their authenticity and genuineness. In the case of a candidate who has taken by examination the degree of Bachelor or Master of Arts in any University in the United Kingdom, it will be sufficient to produce a certificate that he has been engaged for five years (instead of six years) in the acquirement of professional knowledge in recognised Hospitals or Schools, but in all other respects he must produce the certificates of the foregoing course of study. Any person who was a member of the College on the fourteenth day of September, one thousand eight hundred and forty-four, will be admitted to examination for the Fellowship upon the production of a certificate signed by three Fellows that he has been eight years in the practice of the Profession of Surgery, and that he is a fit and proper person to be admitted a Fellow, if upon examination he shall be found qualified. Any person who shall have become a member of the College after the said fourteenth day of September, one thousand eight hundred and forty-four, will, after the expiration of twelve years from the date of the diploma, be admitted to examination for the Fellowship, upon the production of a certificate signed by three Fellows that he has been for twelve years in the practice of the Profession of Surgery, and that he is a fit and proper person to be admitted a Fellow, if upon examination he shall be found qualified.

The preliminary examination in Classics, Mathematics, and French is held in the months of April and October; to which candidates are admitted upon having completed the 18th year of their age, and on the payment of the fee of ten guineas. The professional examination is held in the months of May and November, and occupies two days, either successive, or at such interval as the Court of Examiners may appoint. The subjects of the first day's examination are, Anatomy and Physiology; those of the second day, Pathology, Therapeutics, and Surgery; in the anatomical examination the candidate has to perform dissections or operations on the dead body. The time allowed for examination each day is from ten o'clock im the forenoon until four o'clock in the afternoon. A candi

date whose qualifications shall be found insufficient upon his professional examination, will not be allowed to present himself a second time until after the expiration of one year from such examination. Every Member of the College shall, prior to his admission to the professional examination, pay the fee of ten guineas, unless he shall have passed the Preliminary Classical Examination.

The following are the subjects of the preliminary examination of the candidates for the Fellowship of this College during the year 1858, viz. :—

CLASSICS.

Livy, Book XXX.
Horace, Odes III. IV.
Thucydides, Book VII.
Euripides, Medea.

Each candidate is required to bring up one of the above Greek, and one of the above Latin authors ; one prose writer, and one poet.

MATHEMATICS.

Arithmetic.
Algebra, as far as to include the doctrine of Proportions ; and Simple Equations with one or two unknown quantities.
Euclid, Books I. II. III.
Statics, Hydrostatics, Optics, and Acoustics.

In the physical subjects, it will be sufficient to be prepared with general explanations of the leading phenomena, such as may be found in treatises on Physics, except in the case of Statics and Hydrostatics, in which mathematical demonstrations of the elementary propositions will also be required, such as may be found in any of the following books :—

Barrett's Propositions in Mechanics and Hydrostatics.
Snowball's Cambridge Course of Elementary Natural Philosophy.
Whewell's Mechanical Euclid.
Williams's Elements of Mechanics and Hydrostatics.

FRENCH.

The translation into English of a passage in two of the following works, at the option of the candidate :—

Molière's Misanthrope.
La Martine's Voyage en Orient.
Voltaire's Histoire du Pierre le Grand.

Grammatical questions on the parts of speech, particularly the conjugation of the irregular verbs in the selected passages.

This examination is held twice in the year, in the months of April and October, to which candidates are admitted upon having completed the 18th year of their age, and on payment of the fee of ten guineas.

Any further information may be obtained by application to the Secretary, at the College.

THE SOCIETY OF APOTHECARIES,

BLACKFRIARS.

Master.—J. Simoens, Esq.

Wardens.—J. Saner, and F. R. Gowar, Esqs.

The Court of Examiners.—E. Tegart, Esq., Chairman ; W. Dickinson, R. H. Semple, W. G. T. Dyer, T. Ansell, W. P. Brodribb, R. Norton, T. Peregrine, H. M. Rowdon, T. R. Wheeler, S. H. Ward, and J. Randall, Esqs.

Secretary to the Court of Examiners.—A. M. Randall, Esq.

Professor of Chemistry and Materia Medica.—William Thos. Brande, Esq., D.C.L., F.R.S.

Examiner for the Society's Prizes in Botany.—Joseph D. Hooker, Esq., M.D., F.R.S., F.L.S.

Clerk to the Society.—Robert Brotherson Upton, Esq.

Curator of the Society's Botanic Garden.—Mr. Thomas Moore.

Beadle.—Charles Rivers.

REGULATIONS.

Every candidate for a certificate or qualification to practise as an Apothecary will be required to produce testimonials :—1. Of having served an apprenticeship of not less than five years to an Apothecary. No gentleman practising as an Apothecary in England or Wales can give his apprentice a legal title to examination unless he is himself legally qualified to practise as an Apothecary, either by having been in practice prior to or on the 1st August, 1815, or by having received a certificate of his qualification from the Court of Examiners. An apprenticeship, for not less than five years, to Surgeons practising as Apothecaries in Ireland and Scotland, gives to the apprentice a title to be admitted to examination. 2. Of having attained the full age of twenty-one years. As evidence of age, a copy of the baptismal register will be required in every case where it can possibly be procured. 3. Of good moral conduct. A testimonial of moral character from the gentleman to whom the candidate has been an apprentice will always be more satisfactory than from any other person. 4. And of having pursued a course of Medical study, in conformity with the regulations of the Court.

Every candidate whose attendance on Lectures shall commence on and after the 1st of October, 1849, must attend—

(*See Table of Requirements*, p. 324.)

The above course of study may be extended over a longer period than three winter and two summer sessions, provided the lectures and medical practice are attended in the order prescribed.

Those gentlemen whose attendance on lectures commenced before the 1st of October, 1849, will be allowed to complete their studies in conformity with the previous regulations of the Court.

Hospitals and Dispensaries.—No Hospital will be recognised by the Court, unless,—1. It contains at least 100 beds. 2. It be under the care of two or more Physicians, members of the Royal College of Physicians of London, or graduated Doctors of Medicine of a British University ; and an Apothecary legally qualified, either by having been in practice prior to the 1st of August, 1815, or by having received a certificate of qualification from this Court. 3. The Physicians give lectures on Clinical Medicine, and instruction in Morbid Anatomy. No Dispensary will be recognised by the Court, unless it be situated in some town where there is a recognised Medical School, and be under the care of at least two Physicians and an Apothecary legally qualified. No Medical practice will be available, unless it be attended in conformity with the course of study prescribed for pupils.

Registration of Testimonials.—All testimonials must be given on a printed schedule, and the blanks therein must be filled up by the lecturers themselves. Students will be supplied with schedules at the time of their first registration. All students, in London, are required personally to register the several classes for which they have taken tickets. Tickets of admission to lectures and Medical practice must be registered in the months of October and May; but no ticket will be registered unless it be dated within seven days from the commencement of the course. The Court also require students at the Provincial Medical Schools to register their names in their own handwriting, with the registrar of each respective school, within the first twenty-one days of October, and first fourteen days of May ; and to register their certificates of having duly attended lectures or Medical practice within fourteen days of the completion of such attendance. Those students only will be admitted to examination whose registrations have been duly communicated to the Court.

Junior preliminary Examination in Classics and Mathematics.—An examination in Classics and Mathematics will be held at the Hall three times in the year : viz., on the third Tuesday in the months of March, July, and November. Medical students will be admitted to this examination at any period from the date of their apprenticeship to the commencement of the second Winter Session of their curriculum ; and those who pass it will not be subject to any subsequent examination in Latin, except in the Pharmacopœia Londinensis and Prescriptions. The subjects of examination will be announced in the Medical Journals three months before each examination. Candidates for this examination will be required to enter their names in a book kept at the beadle's office, not less than one month before the day of examination ; and those gentlemen who fail to pass this examination will have to undergo the Latin examination in Celsus and Gregory, when they present themselves for their general examination.

N.B.—This examination, which has hitherto been voluntary, will become compulsory to all gentlemen who commence their apprenticeship after August 1, 1858.

Examination.—The Court of Examiners meet in the Hall every Thursday, where candidates are required to attend at a quarter before four o'clock. Every person intending to offer himself for examination must give notice in writing to the clerk of the Society on or before the Monday previously to the day of examination, and must at the same time deposit all the required testimonials at the office of the beadle, where

attendance is given every day, except Sunday, from ten until four o'clock. The examination of the candidate for a certificate of qualification to practise as an Apothecary, will be as follows:—In translating portions of the first four books of Celsus de Medicinâ, and of the first twenty-three chapters of Gregory's Conspectus Medicinæ Theoreticæ. In Physicians' Prescriptions, and the Pharmacopœia Londinensis. In Chemistry. In practical Chemistry. In Materia Medica and Therapeutics. In Botany. In Anatomy. In Physiology. In the Principles and Practice of Medicine, including Midwifery and the Diseases of Children.

The examination of the candidate for a certificate of qualification to act as Assistant to an Apothecary, in compounding and dispensing medicines, will be as follows:—In translating Physicians' prescriptions, and the Pharmacopœia Londinensis. In Pharmacy and Materia Medica. By the 22nd section of the Act of Parliament, no rejected candidate for a certificate to practise as an Apothecary can be re-examined until the expiration of six months from his former examination; and no rejected candidate, as an Assistant, until the expiration of three months.

The Act directs the following sums to be paid for certificates:—For London, and within ten miles thereof, ten guineas; for all other parts of England and Wales, six guineas. Persons having paid the latter sum become entitled to practise in London, and within ten miles thereof, by paying four guineas in addition. For an Assistant's certificate, two guineas.

NAVY MEDICAL DEPARTMENT.

Director-General of the Medical Department of the Navy.—Sir John Liddell, Kt., MD., C.B., F.R.S.

REGULATIONS FOR CANDIDATES FOR THE OFFICE OF ASSISTANT-SURGEON IN THE ROYAL NAVY.

Admiralty, March 1, 1853.

The Right Honourable the Lords Commissioners of the Admiralty are pleased to direct that the following regulations relative to the examination of candidates for the appointment of Assistant-Surgeon in the Royal Navy, shall in future be adopted:—

That a candidate for entry into the Royal Navy shall make a written application to that effect, addressed to the Secretary of the Admiralty; on the receipt of which application he will be furnished with the regulations, and a printed form to be filled up by him, to show if he possess the required qualifications.

As vacancies occur, the number of candidates required will be ordered to attend at the Admiralty Office, bringing with them the requisite certificates, showing that they are fully qualified by age, professional ability, etc., when they will be examined by a Board of Medical Officers, to be named by their Lordships.

Such candidates as shall have been found in all respects competent for the appointment of Assistant-Surgeon will be forthwith nominated to one of the naval hospitals at home, to await appointments to any one of Her Majesty's ships; or, should their services not be immediately required, their names will be duly registered for early appointments, as vacancies may occur.

That no person be admitted as an Assistant-Surgeon in the Royal Navy, who shall not produce a certificate from one of the Royal Colleges of Surgeons of England, Edinburgh, or Dublin, or from the Faculty of Physicians and Surgeons of Glasgow, of his fitness for that office; nor as a Surgeon, unless he shall produce a diploma, or certificate from one of the said Royal Colleges or Faculty, founded on an examination to be passed subsequently to his appointment of Assistant-Surgeon as to his fitness for the situation of Surgeon in the Navy; and in every case the candidate producing such certificate or diploma, shall also undergo a further examination, touching his qualifications in all the necessary branches and points of Medicine and Surgery for each of the steps in the Navy Medical Service; and that previously to the admission of Assistant-Surgeons into the Navy, it will be required that they produce proof of having received a preliminary classical education, and that they possess in particular a competent knowledge of Latin; also

That they are of good moral character, the certificate of which must be signed by the clergyman of the parish, or by a magistrate of the district.

That they have served an apprenticeship, or have been engaged for not less than six months in practical pharmacy.

That their age be not less than 20 years, nor more than 26 years.

That they have actually attended an Hospital in London, Edinburgh, Dublin, Glasgow, Aberdeen, Manchester, or Bristol, for eighteen months subsequently to the age of 18, in which Hospital the average number of patients is not less than 100.

That they have been engaged in actual dissections of the human body twelve months; the certificate of which from the teacher must state the number of subjects or parts dissected by the candidate.

That they have attended lectures, etc., [*in accordance with the table given at page* 324.]

Full Pay at Hospitals.—Medical Inspector of Hospitals, on first appointment, £1 13s. per diem; after 5 years' service, £2 2s.; Deputy Medical Inspector of Hospitals, on appointment, £1 7s. 6d.; Staff Surgeons and Medical Storekeepers of Hospitals, on appointment, with less than 20 years' service, 16s. 6d.; above 20 years' service, £1 0s. 6d.—*When serving afloat.*—Medical Inspector of Hospitals and Fleets, above 5 years' service as such, £2 2s.; under five years' service as such, £1 11s. 6d.; Deputy Medical Inspector of Hospitals and Fleets, £1 0s. 0d.; Surgeon of an Hospital ship, 18s; above 20 years' full pay service, including service as Assistant-Surgeon, 18s.; above 10 years' ditto, 14s.; above 6, 12s.; under 6, 11s. Assistant-Surgeon, in ships in which no Surgeon is borne, above 10 years' full pay service, 10s. 1d.; under 10, 9s. 1d. In ships in which a Surgeon is borne, above 10 years' full pay service, 9s. 7d.; above 3, 8s. 7d.; under 3, 8s. 1d.

Relative Rank of Officers of the Army and Medical Officers of the Navy.—Medical Inspectors of Hospitals and Fleets with Lieutenant-Colonels; Deputy-Medical Inspectors of Hospitals and Fleets with Majors; Surgeons with Captains; and Assistant-Surgeons with Lieutenants.

ARMY MEDICAL DEPARTMENT.

Director-General.—Andrew Smith, Esq., M.D.
Deputy-Inspector General of Hospitals.—Dr. Dumbreck, C.B., Professional Assistant.
Staff-Surgeon, First Class.—H. Pilleau, Esq.
Staff-Surgeon, Second Class.—Dr. F. Reid.
Apothecary to the Forces.—F. M. Bassano, Esq.
Chief Clerk.—John Wimbridge, Esq.

In selecting from among the candidates for the Medical Department of the Army, a preference is given to those who can fill up all the blanks in the Schedule of Qualifications, by having the acquirements therein stated. The name of no gentleman can be placed on the list who does not possess a diploma from the Royal College of Surgeons of England, Scotland, or Ireland, or from the Faculty of Physicians and Surgeons of Glasgow, or other corporate body legally entitled to grant a Diploma in Surgery, and who cannot produce testimonials of attendance [*in accordance with the Table given at p.* 324.]

The candidates must be unmarried, not beyond twenty-five years of age, nor under twenty-one years.

Candidates who have had a University education, and have the degree of A.B. or A.M., as well as that of M.D., will be preferred; but a liberal education, and a competent knowledge of the Greek and Latin languages, are indispensably requisite in every candidate.

The greater the attainments of the candidates, the more eligible will they subsequently be deemed for promotion; as selections to fill vacancies, especially in the higher ranks, will be guided more by reference to such acquirements, than to mere seniority.

Although the British schools are specified, it is to be understood that candidates who have received a regular Medical education in approved foreign Universities or schools will be admitted to examination.

With the exception of Practice of Physic and Clinical Medicine by one teacher, candidates must have attended separate lecturers for each branch of Medical science.

Before promotion from the rank of Assistant Surgeon to any higher rank, every gentleman must be prepared for such other examination as may be ordered before a Board of Medical officers.

Diplomas, tickets of attendance on lectures, and certificates of regular attendance by each professor or lecturer, must be lodged at the office for examination and registry, at least one week before the candidate appears for examination; likewise certificates of moral conduct and character,—one of them by the parochial minister, if possible. Baptismal certificates are required at the same time; and, if the parish register cannot be resorted to, an affidavit from one of the parents, or from some near relative who can attest the fact, will be accepted.

The certificate of the Teacher of Practical Anatomy must state the number of subjects or parts dissected by the pupil.

Certificates of lectures and attendance must be from Physicians or Surgeons of the recognised Colleges or Medical Schools of the United Kingdom, or of foreign Universities.

All candidates for Medical appointments are required to be conversant with Cullen's Nosology.

Note.—All communications to be prepaid, or if not, to be forwarded, addressed outside to "The Under Secretary of State for War," with the words, "Army Medical Department," at the left-hand corner.

Army Medical Department.—Full-pay, per diem, after actual service (in years)—Inspector-General, twenty-five years, 2*l.*; twenty years, 1*l.* 18s.; ten years, 1*l.* 16s. Deputy-Inspector, according to the same gradations of service, 1*l.* 10s.; 1*l.* 8s., and 1*l.* 4s. Staff-Surgeon, first class, ditto, 1*l.* 4s., 1*l.* 2s., 19s. Regimental-Surgeon and Staff-Surgeon, second class, ditto, 1*l.* 2s., 19s., 15s.; under ten years, 13s. Assistant-Surgeons, ditto, 10s. and 7s. Assistant-Surgeons serving in the Horse, Life, or Dragoon Guards, receive about 1s. per diem in addition to the above rates. Half-pay per diem, after service (in years)—Inspector-General, thirty years, 1*l.*; twenty-five years, 15s.; twenty years, 12s. Deputy-Inspector, thirty years, 18s.; twenty-five years, 14s.; twenty years, 10s.; ten years, 8s.; under ten years, 7s. Staff-Surgeons, thirty years, 16s.; twenty-five years. 13s.; twenty years, 9s. 6d.; ten years, 7s. 6d.; under ten years, 6s. 6d. Regimental-Surgeons and Staff-Surgeons, second class, thirty years, 15s.; twenty-five years, 11s. 6d.; twenty years, 8s.; ten years, 6s.; under ten years, 5s. 6d. Assistant-Surgeons, thirty years, 7s.; twenty-five years, 6s.; twenty years, 5s. 6d.; ten years, 4s.; under ten years, 3s.

EAST INDIA COMPANY'S MEDICAL SERVICE.

REGULATIONS FOR THE ADMISSION OF CANDIDATES FOR THE APPOINTMENT OF ASSISTANT SURGEON.

All natural-born subjects of Her Majesty, between 22 and 28 years of age, and of sound bodily health, may be candidates for admission into the service of the East India Company as Assistant-Surgeons.

They must subscribe and send in to Dr. Scott, the Physician to the Honourable East India Company, ten days before the period fixed for each examination, a declaration to the following effect:—

"I (christian and surname at full length), a Candidate for employment as an Assistant-Surgeon in the service of the East India Company, do hereby declare that I was
years of age on the day of
last, and that I labour under no constitutional disease or physical disability that can interfere with the due discharge of the duties of a Medical Officer; and I also attest my readiness to proceed on duty to India within three months of receiving my appointment."

This declaration must be accompanied by the following documents:—1. Proof of age, either by extract from the register of the parish in which the candidate was born, or by his own declaration, pursuant to the Act 5 and 6 William IV. cap. 62. 2. A certificate of moral character from a magistrate, or a minister of the religious denomination to which the candidate belongs, who has personally known him for at least two preceding years. 3. A diploma in Surgery, or a degree in Medicine, provided an examination in Surgery be required for such degree, from some body competent by law to grant or confer such diploma or degree.

[*For other requirements, see Table, p.* 324.]

Candidates may also, at their option, send in certificates of attendance at any Hospitals, or on any courses of lectures, in addition to the above. Attendance on a course of Military Surgery, and the practical study of surgical operations on the dead body, are recommended.

The examination will include the following subjects: [*see Table, p.* 324.]

The following are the books recommended in—Zoology and Comparative Anatomy—Outlines of the Structure of the Animal Kingdom, by Rymer Jones, or Cours Elémentaire d'Histoire Naturelle, par Milne-Edwards. Botany—Lindley's School Botany, or Lindley's Elements of Botany. The examination will be conducted—1. By means of written questions and answers. 2. By object examinations and experiments, when the subject admits of such tests. 3. By practical examination of patients, and by operations on the dead body. 4. By *vivâ voce* examination. The persons who shall be pronounced by the examiners to be the best qualified in all respects, will be appointed to fill the requisite number of appointments as Assistant-Surgeons in the East India Company's service; and, so far as the requirements of the service will permit, they will have the choice of the Presidency in India to which they shall be appointed, according to the order of merit in which they stand on the list resulting from such examination. All Assistant-Surgeons are required to subscribe to the Military or Medical, and Medical Retiring Funds, at the Presidencies to which they may be respectively appointed, and to the Military Orphan Society also, if appointed to Bengal. All Assistant-Surgeons who shall neglect or refuse to proceed to India under the orders of the Court of Directors, within three months from the date of their appointment, will be considered as having forfeited it, unless special circumstances shall justify a departure from this regulation. The examinations will take place in the months of January and July in each year, and due notice will be given by public advertisement of the days appointed, and of the probable number of candidates to be selected.

The Examiners for Assistant-Surgeons in the Honourable East India Company's Service, having received many inquiries as to the object and extent of the Examination in Comparative Anatomy, Zoology, and Botany, have considered it desirable to announce that their objects are,—

1. To ascertain who of the candidates have devoted especial attention to any of these sciences, and are hence qualified to undertake duties requiring a knowledge of them, as well as the general duties of their profession. Proficiency in these sciences will, in classifying the candidates by merit, be entitled to great consideration. 2. To encourage all candidates to acquire an elementary knowledge of the structure and affinities of the principal natural families of animals and of plants, with the general plan upon which these are constructed, and the functions and relations of their most important organs. 3. To promote the study of Natural History as a most important adjunct or preliminary to a liberal Medical education; that of Comparative Anatomy, Zoology, or Botany, if properly cultivated, by means of specimens, for even a short period, being eminently calculated to develop habits of close observation, and to strengthen those powers of reason upon observed facts, which must be habitually exercised by Medical men everywhere, but which must be exercised with the greatest energy and promptitude by those who practise in a tropical climate, and who are often thrown wholly upon their own resources. The general examination in these sciences will be elementary, and will embrace a very limited range of technical terms. At the written examination, a considerable number of questions will be put, with the view of allowing each candidate to select such subjects as he has attended to, and, thereby, of enabling the Examiners to ascertain the particular departments of science in which the verbal examination should be conducted. With those candidates who have attained proficiency in any branch of these sciences, the verbal examination will be pursued in the branch selected, so as to ascertain the full extent of their knowledge.

HOSPITAL STAFFS.

TABLE OF MEDICAL AND SURGICAL OFFICERS OF THE LONDON HOSPITALS.

	CONSULTING PHYSICIANS.	PHYSICIANS.	PHYSICIAN-ACCOUCHEURS.	SURGEONS.	SURGEON-DENTISTS.	OPHTHALMIC SURGEONS.	ASSISTANT-PHYSICIANS.	ASSISTANT-SURGEONS.
King's College Hospital.....	Dr. Watson Dr. Ferguson	Dr. Budd Dr. Todd Dr. G. Johnson	Dr. A. Farre	Mr. Fergusson Mr. Partridge Mr. Bowman Mr. Lee	Mr. Cartwright, jun.		Dr. Murchison Dr. C. Evans	Mr. Wood Mr. Hulke
University College Hospital...		Dr. Walshe Dr. Parkes Dr. Garrod Dr. Jenner	Dr. Murphy	Mr. Quain Mr. Erichsen	Mr. Shelley	Mr. W. Jones	Dr. Hare	Mr. Marshall Mr. H.Thompson
St. Bartholomew's Hospital		Dr. Hue Dr. Burrows Dr. F. J. Farre Dr. Jeaffreson	Dr. West	Mr. Lawrence Mr. Stanley Mr. Lloyd Mr. Skey			Dr. Black Dr. Baly Dr. Kirkes Dr. Martin	Mr. Wormald Mr. Paget Mr. M'Whinnie Mr. Coote
St. Thomas's Hospital (a) ...	Dr. Roots	Dr. Barker Dr. Bennett Dr. Goolden	Dr. Waller Dr. Griffith	Mr. South Mr. Mackmurdo Mr. Solly Mr. Clark Mr. Simon	Mr. Patient	Mr. Mackmurdo	Dr. Peacock Dr. Bristowe	
Guy's Hospital...	Dr. Bright	Dr. Addison Dr. Barlow Dr. Hughes Dr. Rees	Dr. Lever Dr. Oldham	Mr. Cock Mr. Hilton Mr. Birkett	Mr. Bell Mr. Salter	Mr. Francc	Dr. Gull Dr. Habershon Dr. Wilks	Mr. Poland Mr. Forster Mr. J. Bryant
Westminster Hospital.....		Dr. Basham Dr. Fincham Dr. Radcliffe	Dr. Bird Dr. Ogle	Mr. Holt Mr. Brooke Mr. Holthouse	Mr. Clendon		Dr. Marcet Dr. R. Reynolds	Mr. Hillman Mr. Power
St. George's Hospital		Dr. Page Dr. B. Jones Dr. Pitman Dr. Fuller	Dr. R. Lee	Mr. Hawkins Mr. Cutler Mr. Tatum [son Mr. H. C. John-			Dr. Barclay Dr. J. W. Ogle	Mr. Hewett Mr. Pollock
London Hospital		Dr. Little Dr. Fraser Dr. Davies	Dr. Ramsbotham	Mr. Luke Mr. Adams Mr. Curling	Mr. Barrett		Dr. Parker Dr. Gibbon Dr. A. Clark	Mr. Critchett Mr. N. Ward Mr. Wordsworth
Middlesex Hospital		Dr. Hawkins Dr. S. Thompson Dr. Stewart	Dr. Frere	Mr. Shaw Mr. de Morgan Mr. Moore	Mr. Tomes	Mr. Moore	Dr. Goodfellow Dr. H.Thompson	Mr. Henry
Charing - Cross Hospital.....	Dr. Shearman	Dr. Golding Dr. Chowne		Mr. Hancock Mr E. Canton			Dr. Willshire Dr. Salter	Mr. Hird Mr. Barwell
St. Mary's Hospital (b)		Dr. Alderson Dr. Chambers Dr. Sibson	Dr. T. Smith Mr. J. B. Brown (e)	Mr. Coulson Mr. Lane Mr. Ure		Mr. W. Cooper	Dr. H. Jones Dr. Sieveking Dr. Markham	Mr. S. Smith Mr. Walton Mr. Lane

(a) Consulting Surgeon, Mr. Green. (b) Aural Surgeon, Mr. Toynbee. (c) Surgeon-Accoucheur.

FEES FOR HOSPITAL PRACTICE.

	MEDICAL PRACTICE.						SURGICAL PRACTICE.						DRESSERSHIPS.		
	3 Mos.	6 Mos.	9 Mos.	12 Mos.	18 Mos.	Perpetl.	3 Mos.	6 Mos.	12 Mos.	18 Mos.	3 Years	Perpetl.	3 Mos.	6 Mos.	12 Mos.
	£ s.	£ s	£ s.	£ s.	£ s.	£ s.	£ s.	£ s.	£ s.	£ s.	£ s.	£ s.	£ s.	£ s.	£ s.
St. Bartholomew's	...	10 10	12 12	...	15 15	31 10	...	15 15	21 10	...	26 5	31 10	12 12	18 18	26 5
St. Thomas's (a)	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Guy's (a)	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Westminster (b)	...	10 10	...	12 12	15 15	21 0	8 8	12 12	21 0	...	...	31 10			
St George's	...	8 8	...	16 16	...	25 4	...	15 15	21 0	...	...	32 10	(c)	(c)	(c)
London	...	6 6	...	11 11	...	21 0	...	...	12 12 (d)	18 18 (e)	26 5 (f)	...	...	...	5 5 (g)
Middlesex	6 6	10 10	...	...	15 15	21 0	...	10 10	12 12	...	18 18	21 0			
University (i)	...	10 10	...	15 15	...	26 5 (h)	...	10 10	15 15	...		26 5 (h)			
Charing-cross (k)	6 6	10 10	...	15 15	...	...	6 6	10 10	15 15	...					
King's (l)	6 6	10 10	...	...	15 15	21 0	10 10	15 15	...	21 0 (m)		26 5			
St. Mary's	5 5	7 7	...	12 12	15 15	21 0	...	9 9	21 0	...		31 10			

(a) See Table of Fees to Lectures, p. 330.

(b) Hospital Practice, required by College and Hall, composition fee, 26 guineas.

(c) Pupils entering to the Surgical Practice for twelve months are allowed, when qualified, to dress patients for three months, and perpetual pupils for six months, without additional fee. The dresser of the Surgeon of the week boards at the Hospital free of expense.

(d) Including six months' dressership.

(e) Including twelve months' dressership.

(f) Including twelve months' dressership.

(g) Additional during the three years; and for twelve months' dressership after expiration of the three years, £8 8s.

(h) £26 5s. for both Medical and Surgical.

(i) For six months' Practical Pharmacy, £5 5s.; three months, £3 3s.

(k) Full period required by College and Hall to both practices, 25 guineas.

(l) Perpetual to the Medical and Surgical Practice:—Matriculated Students, £31 10s.; non-Matriculated, £36 15s.

(m) For twenty-one months.

SYNOPSIS OF REQUIREMENTS FOR DEGREES, APPOINTMENTS,

	Descriptive and Surgical Anatomy.	General Anatomy and Physiology.	Comparative Anatomy.	Pathological Anatomy.	Chemistry.	Botany.	Materia Medica and Pharmacy.	General Pathology.	General Therapeutics.	Forensic Medicine.	Hygiene.	Midwifery and Diseases of Women and Children.	Surgery.
LONDON UNIVERSITY, 1st Ex.	A Course of Lectures on each of four of the Subjects in the above headings.												
Examined in (a)	—	—			—	—	—						
Examination for honours	—	—			—	—	—						
Second examination	A Course of Lectures on two of each o the above Subjects, exclusive of the four in 1st Examination.												
Examined in (b)			—					—	—	—	—	—	—
Examination for honours			—									—	
Doctor of Medicine (c)													
Examined in													
ROYAL COLL. OF PHYSICIANS Education must comprise (extending over a period of 5 years)	—	1st Exam. —			—		—	2nd Exam. —	3rd Exam. —				
ROYAL COLLEGE OF SURGEONS: Studies													
Lectures	3 Winter Sessions	3 Winter Sessions.			—		1 Course					1 Course.	2 Win. Ses.
Examined in	—												—
SOCIETY OF APOTHECARIES: Lectures — 1st Year, Winter	—	—			—							—	
,, ,, Sumr.							—					—	
,, 2nd Year, Winter	—	—				—							
,, ,, Sumr.										—		—	
,, 3rd Year, Winter	—	—		—									
Examined in	—	—			—	—	—		—	—		—	
NAVY MEDICAL DEPART. (d)		12 mos.	6 mos.		3 mos.	3 mos.	6 mos.	6 mos.				6 mos.	12 mos.
ARMY MEDICAL DEPARTMENT (d) (e)	12 mos.	6 mos.			12 mos.	3 mos.	3 mos.	6 mos.				3 mos.	6 mos.
EAST INDIA SERVICE (f) (d)							6 Months.					1 Course.	
Examined in		—	—			—			—				—

(a) And to translate passages from the Latin Pharmacopœia; having passed Examination for B.A. (b) And to translate passages of the Latin Pharmacopœia into
subsequently to the age of 18. (c) And 1 Course of Natural Philosophy, and 1 of Logic. (f) And 3 months'

HOSPITALS AND SCHOOLS OF SURGERY AND MEDICINE

FROM WHICH CERTIFICATES OF THE PROFESSIONAL EDUCATION OF CANDIDATES FOR THE FELLOWSHIP WILL BE RECEIVED BY

THE ROYAL COLLEGE OF SURGEONS.

HOSPITALS.

ENGLAND.—LONDON.—St. Bartholomew's—St. Thomas's—Westminster—Guy's—St. George's—London—Middlesex—University College—Charing Cross—King's College—St. Mary's, Paddington. PROVINCIAL: Bath United Hospital—Bedford General Infirmary—Birmingham General Hospital—Queen's Hospital, Birmingham—Bristol Infirmary—Addenbrook's Hospital, Cambridge—Derbyshire General Infirmary—Devon and Exeter Hospital—Gloucester Infirmary—Hull Infirmary—Kent and Canterbury Hospital—Leeds General Infirmary—Leicester Infirmary—Liverpool Infirmary—Liverpool Northern Hospital—Manchester Royal Infirmary—Newcastle-upon-Tyne Infirmary—Norfolk and Norwich Hospital—Northampton General Infirmary—Nottingham General Hospital—Radcliffe Infirmary, Oxford—Salisbury General Infirmary—Salop Infirmary—Sheffield General Infirmary—Stafford County General Infirmary—Sussex County Hospital—Winchester County Hospital—Worcester Infirmary—York County Hospital.

IRELAND.—DUBLIN: Richmond—Dr. Steevens's—City of Dublin—Mercer's—Meath—Jervis street—St. Vincent's. PROVINCIAL: Belfast Hospital—North and South Infirmaries, Cork.

SCOTLAND.—EDINBURGH: Royal Infirmary. PROVINCIAL: Glasgow Royal Infirmary—Aberdeen Royal Infirmary.

SCHOOLS.

ENGLAND.—LONDON—St. Bartholomew's—St. Thomas's—Guy's—St. George's—London—Middlesex—University College—King's College—Westminster—Charing Cross—Grosvenor Place—Kinnerton Street. PROVINCIAL: Royal School of Medicine and Surgery, Birmingham—Old Park Medical School, Bristol—Hull and East Riding School of Medicine—Leeds School of Medicine—Liverpool Infirmary School of Medicine—Royal School of Medicine and Surgery, Manchester—Chatham Street School of Medicine, Manchester—Newcastle-upon-Tyne College of Medicine—Newcastle-upon-Tyne School of Practical Science—Sheffield Medical Institution—York School of Medicine.

IRELAND.—DUBLIN.—Royal College of Surgeons—Trinity College—Apothecaries' Hall—Carmichael School of Medicine—Dublin School of Medicine—Original School of Medicine, Peter Street. PROVINCIAL: The Queen's Colleges of Belfast, Cork, and Galway—South Mall School of Medicine, Cork. The several Schools recognised by the Royal College of Surgeons in Ireland.

SCOTLAND.—EDINBURGH.—University. PROVINCIAL: University, Glasgow—King's College, Aberdeen—Marischal College and University, Aberdeen. The several Schools recognised by the Royal College of Surgeons of Edinburgh.

SCHOOLS AND HOSPITALS IN THE BRITISH COLONIES, ETC.—The Medical Colleges of Bengal, Madras, and Bombay—The Church University, Toronto. IN FOREIGN COUNTRIES: Paris—Montpellier—Strasburg—Berlin—Vienna—Heidelberg—Bonn—Göttingen—Leyden—Liege—Pavia—Stockholm—New York—Philadelphia.

ETC., BY EXAMINING BODIES AND DEPARTMENTS IN ENGLAND.

Medicine.	Dissections and Demonstrations.	Practical Chemistry.	Practical Pharmacy.	Attended Labours.	Medical Practice.	Surgical Practice.	Natural History.	Clinical Medicine.	Clinical Surgery.	Military Surgery.	Natural Philosophy, Logic, and Moral Philosophy.	
	9 months	1 Course	q. s.									London University, 1st Ex.
												Examined in (a).
												Examined for honours.
	6 months			6	12 mos.	12 mos.						Second examination.
—												Examined in (b).
—												Examination for honours.
—					2 years.							Doctor of Medicine (c).
—											—	Examined in.
—					3 years.		—					Royal Coll. of Physicians Education must comprise (extending over a period of 5 years).
	3 Winter Sessions		6 mos.		1 Win. and 1 Sum. Ses.	3 Win. and 2 Sum. Ses.						Royal College of Surgeons: Studies.
1 Course.				After Lects.				1 Win. and 1 Sum. Ses.	3 Win. and 2 Sum. Ses.			Lectures.
												Examined in.
	—											Society of Apothecaries: Lectures—1st Year, Winter
												,, ,, Summr.
—				—	—							,, 2nd Year, Winter.
		—		—	—			—				,, ,, Summr.
—	—			—	—			—				,, 3rd Year, Winter.
—												Examined in.
6 months.		3 mos.			12 mos.			6 months.	6 months.	6 mos.		Navy Medical Depart. (d).
12 months.	12 months.	6 mos.	3 mos.	3 mos.	12 months.		3 mos.	8 months.	8 monthsj	6 mos.	—	Army Medical Department (d) (e)
				6	2 Courses.			6 mos.				East India Service. (f) (d)
—							—					Examined in.

English, and of the English Pharmacopœia into Latin. (c) Or, if M.B., 5 years in practice. (d) A Diploma in Surgery and must have attended an Hospital 18 months instruction in the Treatment of the Insane, and 3 months on Ophthalmic Disease and practical knowledge of Cupping.

INSTITUTIONS FROM WHICH

THE LONDON UNIVERSITY

IS EMPOWERED TO RECEIVE CERTIFICATES FOR DEGREES IN MEDICINE.

ENGLAND.

Bedford.—General Infirmary—Fever Hospital.

Birmingham. The Queen's College—The Birmingham General Hospital—Sydenham College.

Bristol.—The Bristol Medical School—The Bristol Infirmary—St. Peter's Hospital.

Haslar.—The Royal Naval Hospital.

Hull.—Hull and E. R. of York School of Medicine and Anatomy.

Leeds.—The Leeds School of Medicine—The Leeds General Infirmary.

Leicester.—The Leicester Infirmary.

Liverpool.—The Liverpool Infirmary—The Liverpool Fever Hospital—The Northern Hospital.

London.—University College—King's College—The London Hospital—The Middlesex Hospital—School of Anatomy, adjoining St. George's Hospital—The Charing Cross Hospital—St. Thomas's Hospital—St. Bartholomew's Hospital—The Westminster Hospital—Guy's Hospital—St. George's Hospital—Brompton Hospital for Consumption, for three months Medical Practice—St. Mary's Hospital.

Manchester.—Royal School of Medicine and Surgery—The Union Hospital—The Royal Infirmary—School of Medicine in Chatham Street.

Newcastle-upon-Tyne.—College of Medicine in connexion with the University of Durham—College of Medicine and Practical Science—The Infirmary.

Northampton.—General Infirmary.

Nottingham.—The General Hospital near Nottingham.

Sheffield.—The Sheffield Medical Institution.

York.—The York School of Medicine.

SCOTLAND.

Aberdeen.—King's College and University

Edinburgh.—The University of Edinburgh—The Minto House Dispensary—The Royal Infirmary.

Glasgow.—The University of Glasgow. The Andersonian Institution—The Royal Infirmary.

IRELAND.

The Queen's Colleges in Ireland.

Cork.—The Cork Recognised School of Medicine—The Cork North Infirmary, and the Cork South Infirmary, in conjunction.

Dublin.—Original School of Anatomy, etc., Peter Street—School of Physic in Ireland—Apothecaries' Hall of Ireland—School of Medicine, Park Street—Carmichael School of Anatomy, etc.—Theatre of Anatomy, etc., 27, Peter Street—St. Vincent's Hospital—Mercer's Hospital—Jervis Street Hospital—Dublin School of Anatomy, etc., Digges Street—Royal College of Surgeons in Ireland—Meath Hospital—City of Dublin Hospital—Coombe Lying-in Hospital—Dr. Steevens's Hospital.

Maryborough.—Queen's County Infirmary.

Malta.—The University of Malta.

Ceylon.—The Military Hospital in the Island of Ceylon.

Bengal.—The Medical College of Bengal.

Canada.—The University of M'Gill College, Montreal—The St. Lawrence School of Medicine, Montreal.

Bombay.—The Grant Medical College.

DAYS AND HOURS OF LECTURE AT

—	St. Bartholomew's.	St. Thomas's.	Guy's.	Westminster.	St. George's.	Grosvenor - Place School of Anatomy and Medicine.
Anatomy, Descriptive and Surgical	Daily (ex. Sat.), 2½.	Daily, 9.	Daily, 9.	T., Th., 9; M., W., F., 10.	T., Th., S., 2¾.	Daily, 3.
General Anatomy and Physiology	Daily, 9.	T., Th., S., 10.	T., Th., S., 12.	W., Th., S., 1.	M., W., F., 2¾.	Daily (ex. Sat.), 9.
Chemistry	M., W., F., 10.	M., W., F., 10.	T., Th., S., 11.	M., W., F., 9.	T., Th., S., 11½.	M., W., F., 10.
Materia Medica and Therapeutics	T., Th., S., 9.	M., W., F., 8.	T., Th., S., 2.	M., Th., S., 1.	Daily (ex. Sat.), 11.	Daily (ex. Sat.), 4.
Principles and Practice of Medicine	M., W., F., 3½.	M., W., F., 4.	M., W., F., 3½.	Daily (ex. Sat.), 4.	M., W., F., 9.	T., W., Th., 4.
Principles and Practice of Surgery	M., W., Th., 7.	M., W., F., 3.	T., Th., S., 3½.	M., T., F., 1.	M., W., F., 11¼.	M., F., S., 4.
Midwifery and Diseases of Women and Children	Daily (ex. Sat.), 3.	M., W., Th., F., 9.	Daily, ¼ to 9.	T., W., Th., F., 4.	M., W., F., 9.	Daily (ex. Sat.), 2¾.
Botany...	M., W., F., 9.	T., Th., S., 10.	T., Th., S., 11½.	M., W., F., 11½.	Daily (ex. Sat.), 12.	M., W., F., 9.
Medical Jurisprudence	T., Th., S., 10.	T., Th., S., 8.	T., Th., S., 10.	M., Th., F., 3.	M., T., Th., F., 10.	Daily, 12.
Comparative Anatomy	M., W., F., 10.	W., S., 11.	—	—	—	T., Th., Sat., 10.
Experimental and Descriptive Natural Philosophy	—	—	—	W., 3.	—	M., 12.
Practical Pathology	Occasional, 12.	M., W., F., 11; P.-M. Exam., 4.	—	P.-M. Exam., 1½	—	S., 9.
Microscopical Anatomy	—	S., 3.	—	—	Twice weekly in Winter.	—
Dentistry	—	T., 11.	—	W., 10.	—	—
Ophthalmic Surgery...	—	—	W., F., 3.	—	In Summer.	—
Practical Chemistry	M., T., Th., F., 10 to 1	M., W., F., 10.	M., W., F., 10 to 1.	—	Daily 2½.	T., Th., S., 9½.
Operative Surgery	—	—	—	—	—	Daily, 11.
Demonstrations of Cutaneous Diseases...	—	—	M., 1.	—	—	—
Logic	—	—	—	—	—	—

SCHOLARSHIPS, EXHIBITIONS, PRIZES, ETC.

LONDON UNIVERSITY.

Scholarships—1 of 50*l.* at LL.B. degree; 5 of 50*l.* at M.B. degree.
Exhibitions—3 of 30*l.* at 1st Examination for M.B.; 2 of 30*l.* at Matriculation.
Gold Medals—1 of 20*l.* at LL.D. degree; 7 of 5*l.* at M.B. degree; 7 of 5*l.* at 1st Examination for M.B.
Prizes of Books—3 of 5*l.* at B.A. degree; 3 of 5*l.* at Matriculation.

KING'S COLLEGE.

Scholarships—Nine; the Warneford (2 of 25*l.*), the College (1 of 40*l.*, 1 of 30*l.*, 3 of 20*l.*), the Daniell (20*l*), the Divinity (30*l.*)
Prizes—The Leathes (interest of 300*l.*), the Warneford (2 of 25*l.* and 15*l.*)

UNIVERSITY COLLEGE.

Exhibition—The Longridge, 40*l.*
Scholarships—Andrews, two; 1 of 100*l.*, 1 of 60*l.*
Medals—Fellowe's clinical; one gold, one silver, and certificates of honour.
,, Liston; gold, and certificates of honour.

ST. BARTHOLOMEW'S HOSPITAL.

Scholarships—Two, of 45*l.*
Prizes—Seven; the Wix, the Hichen's, the President's, the Treasurer's, the Bentley, the Foster, Mr. Lloyd's.

ST. THOMAS'S HOSPITAL.

Matriculation Examination—Three Prizes of 20*l.*
Prizes—The Treasurer's (one of 21*l.* and one of 10*l.* 10s.) for 1st year's Students; the President's (one of 21*l.*); and Dr. Roots's (one of 10*l.* 10s.), for 2nd year's Students.
Three of 5*l.* to best Clinical Clerks, 2nd year's men.
3rd and 4th year's men:—one of 15*l.* to most meritorious Clinical Assistant.
The Cheselden Medal; Mr. Smith's Prize of 5*l.* for best Essay on "Neuralgia;" and the Treasurer's Gold Medal for Proficiency and Good Conduct.

GUY'S HOSPITAL.

Dresserships, Clinical Clerkships, Ward Clerks, Dressers' Reporters, Obstetric Residents, and Dressers in the Eye Ward.

WESTMINSTER HOSPITAL.

Prizes—Two of 5*l.* 5s.

ST. GEORGE'S HOSPITAL.

Exhibitions—Three; one of 20*l.*, one of 40*l.*, one of 50*l.*
Prizes—Four; Sir B. Brodie's, Dr. Chambers', the Thompson, Sir Charles Clarke's, the Bishop of Bath and Wells', and Mr. Lewis Powell's.
Curators—2 with salary of 50*l.*
Registrars— ,, 20*l.*
} On recommendation of medical School Council.

LONDON HOSPITAL.

Prizes—Two gold.
Dresserships—Three, for twelve months.

MIDDLESEX HOSPITAL.

Prizes—Three, of £10 10s.; and a prize by Oscar Clayton, Esq.

CHARING-CROSS HOSPITAL.

Scholarships—Free.
Medals—Three; the Gold, the Governor's General Proficiency, and the Governor's Clinical.

ST. MARY'S HOSPITAL.

Prize—(£10) Mr. Spencer Smith's.
Medal—Dr. Bird's Gold.

THE METROPOLITAN SCHOOLS.

London.	Middlesex.	University College.	Charing Cross.	King's College.	St. Mary's.	—
Daily (ex W.), 9¼.	Daily (ex. W.), 12.	Daily, 9.	Daily (ex. Sat.), 8½.	Daily (ex. M.), 9.	Daily, 10¼.	Anatomy, Descriptive and Surgical
M., 4; T., Th., 3.	M., W., F., 3.	Daily, 10.	Daily (ex. Sat.), 3½.	M., W., Th., F., 4.	Daily, 2½.	General Anatomy and Physiology.
M., W., F., 10½.	M., W., F., S., 11.	Daily (ex. Sat.), 11.	T., Th., S., 5.	T., W., Th., S., 10¼	T., Th., S., 9.	Chemistry.
T., W., F., 9.	Daily (ex. Sat.), 3.	Daily (ex. Sat.), 4.	Daily (ex. M.), 9.	M.,W.,Th., F., 12¼.	—	Materia Medica and Therapeutics.
T., Th., S., 10¼.	M., W., F., 9.	Daily, 5.	M., W., Th., 2½.	T., S., 4, Th., 5.	M., W., F., 9.	Principles and Practice of Medicine.
M., W., F. 3.	T., Th., S., 9.	M., T., Th., F., 4.	M., W., F., 5.	M., W., F., 5.	M., W., F., 3¾.	Principles and Practice of Surgery.
M., T., Th., F., 3.	Daily (ex. S.), 4.	Daily (ex. Sat.), 12.	M., T., Th., F., 2.	M., W., Th., F., 9.	—	Midwifery and Diseases of Women and Children.
M., W., F., 11	T., Th., S. 11.	Daily (ex. M.), 8.	Daily, 10.	T., W., Th., F., 11.	—	Botany.
Daily (ex S.), 10.	Daily (ex. M.), 9.	M., T., Th., F., 10	M., W., F., 3.	M., T., W., F., 3.	—	Medical Jurisprudence.
—	M., F., 10	Daily (ex. Sat.), 3.	T., Th., S., 3.	M., W., F., 10¼.	—	Comparative Anatomy.
—	—	M., W., F., 4¼.	W., Th., F. 11½.	W., Th., F., 11¼.	—	Experimental and Descriptive Natural Philosophy.
P.-M. exam., 12½.	M., 10½.	T., W., F., 9.	—	—	S., 11½.	Practical Pathology.
—	S., 11.	Daily (ex. Sat.), 3.	—	—	—	Microscopical Anatomy.
12 Lectures, 7 p.m.	—	T., Th., 6.	—	—	—	Dentistry.
—	—	—	—	—	—	Ophthalmic Surgery.
T., Th., S., 11.	M., W., F., 11.	Daily (ex. Sat.), 11.	T., Th., S.	Daily 10¼.	—	Practical Chemistry.
—	—	—	—	—	—	Operative Surgery.
—	—	—	—	—	—	Demonstrations of Cutaneous Diseases.
—	—	T., W., F., 10¼.	—	M., T., 11¼.	—	Logic.

Resident Medical Officers (4), Non-Resident (2), Medical and Surgical Registrar, Clinical Clerks, and Dressers, all open to competition among qualified perpetual pupils, without extra fee.

GROSVENOR-PLACE SCHOOL OF ANATOMY AND MEDICINE.

(Adjoining St George's Hospital.)

Prizes—The Surgical and Medical Clinical.

QUEEN'S COLLEGE, Birmingham.

Fellowships—(all members holding a diploma are eligible.)
Scholarships—the Warneford (4).
Medals—the Warneford (2), the Governor's Gold (2).
Prizes—the Ratcliff £10 10s., the Ingleby £5 5s.

SYDENHAM COLLEGE, Birmingham.

Prize for General Proficiency.

LIVERPOOL ROYAL INFIRMARY SCHOOL OF MEDICINE.

Scholarship—(10*l.* 10s.) with six months' free residence, dressership, and clerkship.
Free Board and Residence to four pupils for six months.

MANCHESTER SCHOOL OF MEDICINE AND SURGERY.

Scholarships—Three; of 20*l.*, 15*l.*, and 10*l.*

NEWCASTLE-ON-TYNE COLLEGE OF MEDICINE.

(In Connexion with the University of Durham.)

Exhibition—One of 15*l.* for two years.
Scholarships—in University of Durham.

BRISTOL ROYAL INFIRMARY.

Gold Medals.—Two; of 5*l.* 5s., and about 7*l.* 7s. in money.

Besides the above, Prizes *and* Certificates of merit *are generally given in all the Classes.*

MEETINGS OF SCIENTIFIC SOCIETIES IN LONDON.

Botanical ociety, 20, Bedford-street, 1st Friday from November.

Chemical Society, 5, Cavendish-square, 1st and 3rd Monday from November.

Epidemiological Society, 1st Monday from November.

Geological Society, Somerset House, 1st and 3rd Wednesday from November.

Linnæan Society, Soho-square, 1st and 3rd Tuesday from November.

Medical Society of London, 32a, George-street, Hanover-square, every Saturday from November.

Microscopical Society, 21, Regent-street, 4th Wednesday from November.

North London Medical Society, 2nd and 4th Wednesday from November.

Pathological Society, 33, George-street, Hanover-square, 1st and 3rd Tuesday from November.

Pharmaceutical Society, 17, Bloomsbury-square, 1st Wednesday from November.

Royal Botanic Society, Regent's-park, Saturdays, from November.

Royal Institution, Albemarle-street, Fridays, from January to June.

Royal Medical and Chirurgical Society, 53, Berners-street, fortnightly, from the 2nd Tuesday of November.

Royal Society, Somerset House, Thursdays, from November to June.

Royal Society of Literature, 4, St. Martin's-place, 2nd and 4th Wednesdays from November.

Statistical Society, 12, St. James's-square, 3rd Monday from November.

Western Medical and Surgical Society, 1st and 3rd Friday from November.

Zoological Society, 11, Hanover-square, 2nd and 4th Tuesday and 1st Thursday from November.

THE EXAMINING MEDICAL BODIES IN SCOTLAND.

SESSION 1857-58.

UNIVERSITY OF EDINBURGH.

STATUTES OF THE UNIVERSITY OF EDINBURGH RELATIVE TO THE DEGREE OF M.D., SANCTIONED ON 27TH OCTOBER, 1846.

Sect. I.—No one shall be admitted to the examinations for the degree of Doctor of Medicine who has not been engaged in Medical study for four years, during at least six months of each, in the University of Edinburgh, or in some other University where the degree of M.D. is given; unless, in addition to three Medical Sessions so constituted, he has attended, during at least six winter months, the Medical or Surgical practice of a general hospital, which accommodates at least eighty patients, and during the same period a course of Practical Anatomy.

Sect. II.—No one shall be admitted to the examinations for the degree of Doctor who has not given sufficient evidence. 1. That he has studied, once at least, each of the following departments of Medical Science, under Professors of Medicine, in this or in some other University, as already defined, viz.:—Anatomy, Chemistry, Materia Medica and Pharmacy, Institutes of Medicine or Physiology, Practice of Medicine, Surgery; Midwifery, and the Diseases peculiar to Women and Children; General Pathology, or in schools where there is no such course, a three months' Course of Lectures on Morbid Anatomy, together with a supplemental Course of Practice of Medicine, or Clinical Medicine; Practical Anatomy (unless it has been attended in the year of extra-academical study allowed by Sect. I.), during courses of six months. Clinical Medicine, that is, the treatment of patients in a public hospital, under a Professor of Medicine, by whom lectures on the cases are given, during courses of six months, or two courses of three months. Clinical Surgery, Medical Jurisprudence, Botany, Natural History, including Zoology, during courses of at least three months. 2. That in each year of his academical studies in Medicine, he has attended at least two Six Months' Courses of Lectures, or one of these and two Three Months' Courses. 3. That, besides the course of Clinical Medicine already prescribed, he has attended, for at least six months of another year, the Medical or Surgical Practice of a general hospital, either at Edinburgh or elsewhere, which accommodates not fewer than eighty patients. 4. That he has been engaged, for at least six months, by apprenticeship or otherwise, in compounding and dispensing drugs at the Laboratory of an Hospital, Dispensary, member of a Surgical College or Faculty, Licentiate of the London or Dublin Society of Apothecaries, or a professional chemist or druggist. 5. That he has attended, for at least six months, by apprenticeship or otherwise, the out-practice of a hospital, or the practice of a dispensary, Physician, Surgeon, or member of the London or Dublin Society of Apothecaries.

Sect. III.—Attendance on the Lectures of Teachers of Medicine in the Hospital Schools of London, or School of the College of Surgeons in Dublin, or of Teachers of Medicine in Edinburgh, recognised as such by the Royal Colleges of Physicians and Surgeons of Edinburgh (in accordance with regulations to be adopted by these Colleges jointly, and approved of by the Patrons of the University), shall, to the extent of one-third of the whole departments required by Section II., Clause 1, to be studied by candidates, be held equivalent to attendance under Professors in this or in some other University, as already defined. And such attendance shall be available to candidates to the extent of one of the four years of study required by Section I., provided it has embraced, in one year, at least two six months' courses of lectures, or one of these and two three months' courses.

Sect. IV.—No one shall obtain the degree of doctor who has not studied, in the manner already prescribed, for at least one year previous to his graduation, in the University of Edinburgh.

Sect. V.—Every candidate must deliver, before the 31st of March of the year in which he proposes to graduate, to the Dean of the Faculty of Medicine—1. A declaration, in his own handwriting, that he is twenty-one years of age, or will be so before the day of graduation; and that he will not be then under articles of apprenticeship to any surgeon or other master. 2. A statement of his studies, as well in literature and philosophy as in medicine, accompanied with proper certificates. 3. A medical dissertation composed by himself, in Latin or English; to be perused by a professor, and subject to his approval.

Sect. VI.—Before a candidate be examined in Medicine, the Medical Faculty shall ascertain, by examination, that he possesses a competent knowledge of the Latin language.

Sect. VII.—If the Faculty be satisfied on this point, they shall proceed to examine him, either *vivâ voce*, or in writing; first, on Anatomy, Chemistry, Botany, Institutes of Medicine, and Natural History, bearing chiefly on Zoology; and, secondly, on Materia Medica, Pathology, Practice of Medicine, Surgery, Midwifery, and Medical Jurisprudence.

Sect. VIII.—Students who profess themselves ready to submit to an examination on the first division of these subjects, at the end of the third year of their studies, shall be admitted to it at that time.

Sect. IX.—If any one, at these private examinations, be found unqualified for the Degree, he must study during another year two of the subjects prescribed in Section II., Clause 1, in this or in some other University, as above defined, before he can be admitted to another examination.

Sect. X.—Should he be approved of, he will be allowed, but not required, to print his Thesis; and, if printed, forty copies of it must be delivered before the 25th day of July to the Dean of the Medical Faculty.

Sect. XI.—If the Candidate have satisfied the Medical Faculty, the Dean shall lay the proceedings before the Senatus Academicus, by whose authority the Candidate shall be summoned, on the 31st of July, to defend his Thesis; and, finally, if the senate think fit, he shall be admitted, on the first lawful day of August, to the Degree of Doctor.

Sect. XII.—The Senatus Academicus, on the day here appointed, shall assemble at Ten o'clock, a.m., for the purpose of conferring the Degree; and no Candidate, unless a sufficient reason be assigned, shall absent himself, on pain of being refused his Degree for that year.

Sect. XIII.—Candidates for Graduation shall be required to produce evidence of their having conformed to those Regulations which were in force at the time they commenced their Medical Studies in a University.

ROYAL COLLEGE OF PHYSICIANS OF EDINBURGH.

President.—Dr. Maclagan.
Secretary.—Dr. W. Robertson.

REGULATIONS RELATING TO ADMISSION TO THE FELLOWSHIP.

Fellows.—No one can be elected a Fellow of the College till he has obtained the degree of Doctor of Medicine. His petition must be presented at a meeting of the College, after the fees shall have been lodged in the Treasurer's hands; and, if a Graduate of any University in Great Britain or Ireland, the motion for his admission may be determined by ballot at the first quarterly meeting of the College—a majority of three-fourths being necessary to carry it in the affirmative. Graduates of Foreign Universities must previously submit to an examination before the Examiners of the College, which shall consist, 1. Of a Dissertation in English, on some subject in the Practice of Physic selected by the Examiners, to be written by the candidate in an apartment of the College Hall, under the superintendence of the Examiners. 2. Of a *vivâ voce* examination in English, chiefly on Symptomatology, Pathology, and Therapeutics of Diseases; but in part, also, on Anatomy, Chemistry, Botany, and Physiology. 3. The Examiners may institute such examination as they may consider advisable for satisfying themselves that the candidate has received a competent education.

Non-resident Fellows.—The mode of election of a Non-resident is the same as that of a Resident Fellow. In his petition he engages, if he come to reside in Edinburgh, to fulfil the whole conditions which the College does or may require of Resident Fellows; but another ballot must take place before he is admitted to that grade by the College. The fees for a Resident Fellowship amount to 130*l.*, and for a Non-resident 80*l.*, both inclusive of the stamp duty to Government.

Licentiates.—Graduates of British Universities may be admitted Licentiates without any previous trial or examination; but the laws relating to the examination of candidates for the Fellowship having foreign degrees are equally applicable to candidates for the licence having foreign degrees. It is no longer necessary to be a Licentiate in order to become a Fellow. The fee for a licence is the same as that to be paid by a Non-resident Fellow.

N.B.—Personal attendance is not necessary in the case of candidates for the Non-resident Fellowship, unless they are Graduates of foreign Universities, when they must present themselves for examination.

THE ROYAL COLLEGE OF SURGEONS OF EDINBURGH.

SCHOOL OF MEDICINE.

1. Every candidate for a Surgical diploma must have followed his course of study in a University; or in an established School of Medicine, as defined below; or in a Provincial School specially recognised by the College of Surgeons of that division of the United Kingdom in which it is situate.

2. Under the title, "established Schools of Medicine," are comprehended the Medical Schools of those cities of Great Britain and Ireland in which diplomas in Surgery are granted, and such foreign Schools as are similarly circumstanced in the countries in which they exist.

3. Every candidate for a Surgical Diploma must have passed at least one Winter Session in an established School of Medicine, or at the School of Aberdeen, or at one of the Schools of the Queen's University in Ireland.

COURSE OF STUDY.

Professional Instruction.—The candidate must have been engaged in attending the following separate and distinct courses of lectures during a period of not less than twenty-seven months; in which must have been included three Winter Sessions of six months' duration each:—

Anatomy, two courses (a) six months each; Practical Anatomy, twelve months; Chemistry, one course, six months; Practical Chemistry, one course, three months (the number of pupils in each class being limited to 25;) or Analytical Chemistry, one course, three months; Materia Medica and Pharmacy, one course, six months; Institutes of Medicine or Physiology(b), one course, six months; Practice of Medicine, one course, six months; Clinical Medicine, one course, six months; or two courses (a), three months each, during the period of attendance at the Hospital where they are delivered; Principles and Practice of Surgery, two courses, six months each; or Principles and Practice of Surgery and Military Surgery, each one course of six months (a); Clinical Surgery, one course of six months, or two courses (a) of three months each, during the period of his attendance at the Hospital where they are delivered; Midwifery and the Diseases of Women and Children, one course, three months; Medical Jurisprudence, one course, three months; Botany, one course, three months.

Besides these Lectures, the Candidate must have attended at least six cases of Labour, under the superintendence of a qualified Medical Practitioner, either in a recognised Maternity Hospital, or a Dispensary where Midwifery cases are admitted, or in private practice, and must produce a certificate to that effect from the Practitioner under whom he attended. He must also have attended a course of instruction in Practical Pharmacy, at the laboratory of a surgeon or apothecary; or of a chemist and druggist recognised by the College on special application; or of a public hospital or dispensary; and he must produce evidence that he has been engaged in compounding and dispensing medicines for the space of six months. Those who produce certificates of having been, for the space of at least two years, private pupils or apprentices to regularly-licensed medical practitioners, keeping laboratories for dispensing medicines, shall be held qualified in this branch of instruction.

The six months' courses delivered in Edinburgh must consist of not fewer than 110 lectures, with the exception of Clinical Medicine, Clinical Surgery, and Military Surgery. The three months' courses must consist of not fewer than sixty lectures. Two London courses of three months each on any of the above subjects, will be taken as equivalent to one six months' course.

The candidate must also have attended, for twenty-one months, a public general hospital containing on an average eighty patients.

(a) The two Courses must not be simultaneous.

(b) In those Schools of England and Ireland in which two separate courses of lectures are delivered by different teachers, one on Anatomy, the other on Anatomy and Physiology, one of these courses will be received as the course of Anatomy, and the other as the course of Physiology required by the College.

REGISTRATION AND CERTIFICATES.

All Edinburgh students who desire to possess the diploma of the College must enter their names, and the classes which they attend, whether under Professors in the University, or under other qualified teachers, in the Registration Book.

At the close of each Session, students shall produce to the Registrar the certificates of attendance they may have received from their respective teachers, the terms of which shall be entered in the Registration Book.

The book shall be closed for the registration of the Winter classes on the 30th of November in each year; and of the Summer or intermediate classes, at the end of the second week from their commencement.

All students whose classes are thus registered shall be entitled to receive from the Conservator certificates of their courses of study, attested by his signature; but no class shall be included in such certificates, unless actual attendance thereon have been previously attested by the Professor or Lecturer.

Such certificates will be required from all candidates for Surgical diplomas, in regard to that part of their Medical education which they may have received at Edinburgh. Similar certificates will be received from any other schools in which registration-books are kept, in regard to such portions of the course of study as the certificates may embrace. Candidates educated at schools where no registration-books are kept, must produce certificates from their respective Professors or Lecturers, both of them having entered to their several classes at an early period of the course, and also of their having attended those classes with due regularity. And in the case of Practical Anatomy, the certificate must express that the candidate has, during the course of his attendance, been actually engaged in the dissection of the human body, under the personal superintendence of the Professor or teacher.

EXAMINATIONS.

The days of examination are the first and third Tuesdays of every month.

No candidate will be admitted to examination before the termination of his last year's course of study.

Applications for examination must be made to the Inspector of the students' course of study at least two days previously to the day of examination.

Every candidate, on applying to the Inspector, will be required,—1st. To produce satisfactory evidence of his having attained the age of twenty-one years; and 2nd. To produce the certificates of his teachers, prepared as described in the preceding chapter; and, 3rd. To present a tabular statement exhibiting the full amount of his professional education, as well as a separate list of all the classes, hospitals, and dispensaries, attended during each session of his studies. If he have been an apprentice, he shall also insert the name of his master, the date of his indenture, and the length of time for which he was bound. This statement, accurately filled up, must be attested by his signature.

If the candidate have been an apprentice to a Fellow of the College, he must also produce his discharged indenture.

The fees payable to the funds of the College must be lodged, before the examination, in the hands of the Treasurer, who will certify this upon the Examiner's letter, after inspecting and being satisfied with the certificates. The fees will be returned to unsuccessful candidates, whose names will be concealed.

Unsuccessful canditates will be remitted to their studies for a period to be determined by the jndgment of the examinators, but not in any case for less than three months.

The Inspector, if he judge it proper, may order a meeting for examination on any day, at the request of a candidate; but in that case the candidate must pay three pounds in addition to the customary fees; and this money will not be returned to him in the event of his being remitted.

The College having instituted an examination in Latin, and

also an examination in Mechanical Philosophy, to take place on the second Saturday in December annually without expense to the students, those who desire to avail themselves of either or both of these examinations must give in their names, addresses, and places of birth, to the officer of the College, two full days prior to the day of the examinations. Students intending to take the diploma of the College are recommended to take these examinations at as early a period in the course of study as possible.

Candidates for the diploma of the College, who have taken a degree in Arts from a University of Great Britain or of Ireland, will be exempted from the examinations in Latin and in Mechanical Philosophy.

All Candidates who have not given proof of the competency of their knowledge of Latin by the methods prescribed in the last two regulations, will be required to translate into English a portion of a Latin author at the commencement of their examination for the diploma of Licentiate; and if they cannot do so satisfactorily, the examination will not be proceeded with.

All candidates who have not given proof of the competency of their knowledge of Mechanical Philosophy by the methods prescribed above, will be liable to be examined on this department as part of their examination for the diploma of Licentiate.

In order to test more effectually the practical knowledge of candidates, specimens of Anatomy and of Materia Medica will be employed during the examinations; and every candidate will be required to write out one or more formulæ of prescription.

In recording the results of the examinations for the diploma of Licentiate, the Examinators have been instructed to attach special marks of their approbation, in future, to the names of those Licentiates whose acquirements shall appear to them to be of a superior description.

FEES PAYABLE BY CANDIDATES.

1. *For a Diploma*, ordinary candidates pay the sum of 10*l.*

2. Apprentices of those who were Fellows of the College prior to the Charter of 1851, pay 5*l.* for a diploma.

3. *For the Certificate of Qualification to act as Assistant-Surgeon in the Navy*, candidates not having paid for any previous qualification pay 4*l.* 19s. 6d.

[Assistant-Surgeons in the Navy, having previously obtained certificates from the College, will receive a diploma on making up the sum to 10*l.*]

4. *For the Certificate of Qualification to act as full Surgeon in the Navy*, Assistant-Surgeons who have already obtained certificates from the College, pay 3*l.* 18s. 6d.; and those who have previously obtained the diploma of the College pay 2*l.* 17s. 6d.

[Surgeons in the Navy will obtain a diploma on making up the sum to £12 17s. 6d.]

The sums stated above include all fees of every kind, and the officer is prohibited from receiving any.

SURGEONS' HALL, EDINBURGH.

The courses of lectures here qualify for examination at the Royal College of Surgeons of Edinburgh, England, and Ireland; the Apothecaries' Hall, London; the Faculty of Physicians and Surgeons of Glasgow; the Boards of the Army, Navy, and East India Company; and also, so far as required, for the Universities of London, Oxford, Cambridge, St. Andrew's, Aberdeen, and the Queen's University, Ireland.

In accordance with the recent statutes of the University of Edinburgh, one-third of the entire Medical classes required for graduation may be attended under any of the above teachers; and one of the four years of study required for the University Degree may be constituted by attendance, in one year, on two of the above six months' courses, or on one of these and two three months' courses. The regulations require that, in this case, the fee for any of the above classes shall be the same as that for the corresponding class in the University. Those who hold a Scotch or Irish diploma, or degree in Surgery, are admitted to the same rights under the Poor-Law Amendment Act as members of the Royal College of Surgeons of London. The registrations at Surgeons' Hall close on November 30.

UNIVERSITY OF GLASGOW.

FACULTY OF MEDICINE.

The Winter Session commences on the first Tuesday in November, and terminates on the last Wednesday in April. The Summer Session commences on the first Tuesday in May, and terminates on the last Friday in July. Courses of Lectures on Botany, General and Surgical Anatomy, and Practical and Analytical Chemistry, are delivered by the respective Professors.

REGULATIONS FOR DEGREES IN MEDICINE AND SURGERY.

I. *Degrees in Medicine.*—Every candidate for a Medical degree must lodge, with the Clerk of Senate, a certificate of moral character, signed by two respectable persons, with evidence that he has attained the age of 21 years. He must produce evidence of having attended, for four years or four Winter Sessions of Six Months each, an University in which Medical degrees are conferred and Medicine is regularly taught, or Medical Lectures delivered in London or Dublin. He must spend one at least of the four years at the University of Glasgow: and, in each year, he must have attended at least two Courses of Medical Lectures of Six Months' duration. But if he shall spend only one year or Session at the University of Glasgow, then he must attend not less than three Courses of Lectures delivered there, two of them, at least, being of Six Months' duration. If of less extent, two Courses shall be held equivalent to one of Six months. He must produce certificates of attendance on all the following Courses of Instruction, each being of Six Months' duration, with the exceptions mentioned below: Anatomy, Chemistry, Institutes of Medicine, Botany (three months), Materia Medica and Pharmacy, Surgery, Practice of Medicine, Midwifery, Forensic Medicine, (three months), Anatomical Dissections, Practical Chemistry, (three months), General Hospital, (two years, of not less than nine months each, or eighteen months). The said Hospital must contain not fewer than eighty beds; clinical instruction in Medicine and Surgery must be given in it; and the Student must spend, at least, one-half of the period of his attendance in the Physicians' Wards. Hospital attendance, Anatomical Dissections, and Practical Chemistry, shall not be considered as equivalent to the Courses of Lectures referred to in the last clause of Regulation II. Courses of Botany delivered during the Summer alone will be recognised, excepting in the case of those candidates who shall be only one Winter in Glasgow, and shall not have previously attended this Course. Each Candidate for a Medical Degree must lodge, with the Clerk of Senate, the above certificates, and a Schedule of his course of study properly filled up; together with an Essay composed by himself in Latin or English, on some Medical subject of his own selection, on or before the 1st of March or the 10th of June, for the respective following terms of Graduation. No Student shall be entered in any Medical Class later than the 1st of December (excepting those which do not meet till a later period) without the special permission of the Senate. And every candidate for Graduation shall be strictly required to have his name enrolled in the University Album, on or before that day, and to produce an express certificate of his regular attendance, by the Professor in each Class. The candidates shall undergo full examination on all the subjects included in the Curriculum. The examination shall be conducted partly in writing. Previous to the professional examination, the candidate shall give evidence that he possesses a competent knowledge of the Latin language.

The professional examination shall be divided into two parts, which shall take place at different meetings; the first comprehending an examination on Anatomy, Chemistry, Institutes of Medicine, and Botany; the second, on the Principles and Practice of Medicine and Surgery, Materia Medica and Pharmacy, Midwifery and Forensic Medicine. The candidate may have it in his option to undergo the first professional examination at the end of his second Winter Session, or at any of the following examination terms, provided he shall then have attended the necessary Courses of Lectures.

II.—*Degrees in Surgery.*—The Regulations respecting certificates of age and moral character are the same as those under the head of degrees in Medicine. Candidates for the degree of Master of Surgery, shall produce evidence that they have attended Medical and Surgical Lectures, in one or other of

the Universities or Schools already specified, for four years or Winter Sessions in each of which they must have attended two or more of the following Courses of Instruction; the extent of each Course, with the exceptions mentioned below, being Six Months, or the equivalent two Courses of a shorter duration. The candidate must have attended not less than three Courses of Medical Lectures in the University of Glasgow: Anatomy, Chemistry, Institutes of Medicine, Botany, (three months), Materia Medica and Pharmacy, Surgery, Practice of Medicine, Midwifery, Forensic Medicine, (three months), Anatomical Dissections, Practical Chemistry, (three months), a General Hospital, (eighteen months). The said Hospital must contain not fewer than eighty beds; clinical instruction in Medicine and Surgery must be given in it; and the student must attend one-half of the prescribed period in the Surgical, and the other half in the Medical Wards.

N.B. The above Regulations apply to those who shall have commenced their studies in November, 1853. Candidates for degrees, who attended the Medical Classes in the University of Glasgow previously, are admitted to Examination, according to the Regulations which existed at the time when they began to study Medicine.

The days appointed for conferring degrees in Medicine and Surgery are the last Wednesday of April, and the first Wednesday of August. The University Fee for the Degree of M.D. is 15*l.* 3s.; the Government duty on stamp for ditto, is 10*l.*; the Fee for the Degree of Chirurgiæ Magister, is 10*l.* 10s.

Arrangement of the Curriculum.—Intending Graduates in Medicine and Surgery are requested particularly to observe,

I.—That the whole course of study, of four years' duration, required for graduation either in Medicine or in Surgery, must be attended in one or more of the Medical Schools described in Regulation II.

II.—That those who intend to prosecute the whole of their studies in Glasgow, must study during the whole four years in the University, attending during each year at least Two Courses of Medical Lectures of six months' duration, delivered in the University.

III.—That those who receive part of their Medical education in any of the authorized Medical Schools other than the University of Glasgow, must spend at least one Session of six months' duration at the University of Glasgow, attending during that Session not less than Three Courses of Medical Lectures delivered there, of which two at least must be of six months' duration.

IV.—In respect to the order of attendance on the Classes prescribed by Regulation III., it is earnestly recommended, although not absolutely required:—

1st. That Anatomy, Chemistry, Practical Anatomy, Practical Chemistry, and Botany, be attended within the first two years, Botany, if possible, in the summer of the first year.

2nd. That Institutes of Medicine, Surgery, and Materia Medica be attended within the second and third years.

3rd. That Practice of Medicine, Midwifery, and Forensic Medicine be attended within the third and fourth years.

4th. That Hospital Practice with Clinical Instruction be attended during the second, third, and fourth years.

5th. That attendance on Anatomy and Chemistry should always precede that on Institutes of Medicine, and that attendance on Anatomy, Chemistry, and Botany should always precede that on Materia Medica, and the other Classes which follow.

V.—That all Medical Students are further recommended to attend the Lectures on Natural Philosophy, Natural History, Diseases of the Eye, the Lying-in Hospital, and the Infirmary for Diseases of the Eye, and to embrace all opportunities within their reach of studying General Pathology, Comparative Anatomy, and Mental Diseases.

UNIVERSITY AND KING'S COLLEGE, ABERDEEN.

Chancellor.—The Right Honourable the Earl of Aberdeen, LL.D.

Lord Rector.—John Inglis, Esq.

Principal.—P. C. Campbell, D.D.

Sub-Principal.—David Thomson, M.A.

Secretary.—David Thomson, M.A.

Curator of Museum.—Aw. Fyfe, M.D.

Librarian.—Rev. John Fyfe, A.M.

Medical School.—The Winter Session commences on the first Monday of November, and terminates on the third Friday of April. Introductory Lecture on the first Monday of November, at 2 o'clock, p.m.

[*For Classes and Lectures, see Table, p.* 336.]

Students are required to matriculate within the first month of the Winter Session, and within the first fortnight of the Summer Session, and no certificate of attendance will be given without such matriculation. The matriculation fee for all the classes is one sum of 5s. for the Winter, and one of 2s. 6d. for the Summer Session.

Chemistry will be taught, as formerly, in King's College; and the other classes in the Medical School, St. Paul's-street.

Royal Infirmary.—The Hospital is open daily at 10 o'clock a.m., and contains upwards of 300 beds. Separate courses on Clinical Medicine and Clinical Surgery are delivered in the Hospital twice a-week.

Physicians.—Dr. Dyce, Dr. Kilgour, Dr. W. Williamson, Dr. Nicol.

Surgeons.—Wm. Keith, Esq., Wm. Pirrie, Esq., David Kerr, Esq., A. J. Lizars, Esq.

Ophthalmic Surgeon.—John Cadenhead, Esq.

Lecturers on Clinical Medicine and Surgery.—Dr. Kilgour, and William Keith, Esq.

Fee for the Medical and Surgical Practice of the Hospital, 1st year, 3*l.* 10s.; 2nd year, making perpetual, 3*l.*, or one sum of 6*l.* Clinical Medicine.—For the first course, 2*l.* 2s.; subsequent courses, 1*l.* 1s. each. Perpetual, 4*l.* 4s. Clinical Surgery.—For the first course, 2*l.* 2s.; subsequent courses, 1*l.* 1s. each. Perpetual, 4*l.* 4s.

Dispensary.—The Aberdeen General Dispensary, Vaccine, and Lying-in Institution, is open to the Student on application to the Medical Officers. There are annually about 5000 patients, either prescribed for at the Institution, or visited at their own houses.

REGULATIONS TO BE OBSERVED IN GRANTING THE DEGREE OF M.B.

Students shall be entitled to the degree of M.B., who being of the age of twenty-one years, and having completed the curriculum appointed for the degree of M.D. (one *Annus Medicus*, at least, having been passed at King's College), shall, on examination, be found duly qualified; and the fee for such degree shall be Five Guineas. Those who have obtained the degree of M.B. shall be entitled to make application, within twelve years for the degree of M.D., which degree shall be conferred by the Senatus without further examination, on the candidates producing satisfactory evidence that they have creditably pursued the Medical Profession in the interval; and for the degree of M.D. thus conferred, the additional fee of £21 0s. 6d. shall be charged.

REGULATIONS TO BE OBSERVED IN GRANTING THE DEGREE OF M.D.

Candidates for the degree of M.D. must be of the age of twenty-one years complete, previous to examination. Candidates must produce satisfactory certificates of moral character, and of having studied the classics and mathematics at a university, or at an academy of acknowledged reputation. All candidates, with the exceptions mentioned below, must have been engaged in the study of Medicine for at least four years—one of which must be passed at King's College, Aberdeen; and must produce evidence of having attended in some recognised School of Medicine the following course of lectures:—Six months' courses,—Anatomy, 2 courses; chemistry, 1 course; materia medica, 1 course; surgery, 1 course; institutes of medicine and physiology, 1 course; practice of medicine, 1 course; midwifery, 1 course. Three months' courses.—Dissections, 2 courses; practical chemistry, 1 course; medical jurisprudence, 1 course; clinical surgery, 1 course; botany, 1 course; clinical medicine, 2 courses.

Attendance on at least two of the above courses during each session is requisite to constitute an *Annus Medicus*. Certificates of attendance on a six months' course of chemistry, previous to the commencement of medical study, will be received. In addition to the above, every candidate

must have attended for two years the wards of an Hospital containing 100 beds; and, during three months, a shop or dispensary for the compounding of medicines. Previous to commencing the Medical examination, candidates not having the degree of A.M., will be required to show that they have a competent knowledge of the Latin language, by translating a passage from Celsus. 5. The preceding regulations will be strictly enforced in the case of all Students who commenced their Medical studies at a period subsequent to October 1, 1840. But Practitioners who possess a licence or diploma from any of the Royal Colleges of Physicians or Surgeons, or from the Apothecaries' Company, and who have been engaged for at least five years in the practice of Medicine, will be admitted to examination on producing their licence or diploma, along with satisfactory evidence of good moral character, and of having studied the classics at a University, or at an academy of acknowledged reputation. Fee, 26*l.* 5s. 6d.

N.B.—The University and King's College is the only institution in Aberdeen which has a legal power of granting degrees in Medicine. All Medical diplomas purporting to be from the University of Aberdeen, and not signed by the Principal and Professors of King's College, as given below, are illegal and void.

MARISCHAL COLLEGE AND UNIVERSITY OF ABERDEEN.

Chancellor.—His Grace the Duke of Richmond and Lennox.
Rector.—Austen H. Layard, Esq.
Dean of Faculty.—Sir John Forbes, M.D.
Principal.—The Very Rev. Daniel Dewar, D.D. and LL.D.

Winter Session of 1857-58, of six months' duration, commences on Monday, the 3rd of November.

REGULATIONS FOR GRANTING MEDICAL DEGREES.

Four years of attendance on Medical classes, of which two years may be passed at a recognised Medical school; but two must be passed in a University, and one of them, at least, in this University. The attendance, in each year, must embrace not fewer than two Medical classes of six months each; or one of six months, with two of three months each. But it will be held equivalent to one of these four years of attendance, first, in a Master of Arts, to have attended one Medical class while passing through the curriculum of Arts; or, secondly, in any other candidate, to have attended a Medical class in each of two years, along with classes in the curriculum of Arts. The attendance must include the following classes, each for a course of six months—Anatomy, Practical Anatomy, Chemistry, Materia Medica, Institutes of Medicine, Practice of Medicine, Surgery, Midwifery; and the following classes, each for a course of three months—Botany, Practical Chemistry, Medical Jurisprudence. In regard to Practical Anatomy, every candidate must produce a certificate that he has dissected all the parts of the human body. Eighteen months of attendance on the Medical and Surgical practice of an Hospital containing not fewer than eighty beds, along with attendance for six months on Lectures on Clinical Medicine, and for three months on Lectures on Clinical Surgery. Six months of compounding and dispensing Medicines in the laboratory of an Hospital, or of a public Dispensary, or of a licensed General Practitioner, or of a regular Dispensing Druggist.

EXAMINATIONS.

There shall be two examination terms in each year, commencing on the second Tuesday of April, and the third Tuesday of October. Every candidate who is not a Master of Arts, nor possessed of a diploma or a licence in Medicine or in Surgery from any authority established by law within the United Kingdom, shall undergo a preliminary examination on the Latin language (the book to be used being Celsus *de Medicinâ*); on the etymology of such terms in the Medical Sciences as are derived from the Latin and the Greek; and on the Elements of Mental Science (the book to be used being Abercrombie *On the Intellectual Powers*). The preliminary examination may be undergone, at the option of the candidate, at any examination term after the expiry of the first session of his attendance on Medical classes. Every candidate shall undergo two separate Professional examinations; the first on the theoretical, and the second on the practical branches of Medical Science, as under, viz.:—First Examination—Anatomy, Physiology, Botany, Chemistry, Materia Medica. Second Examination—Medical Jurisprudence, Midwifery, Surgery, Practice of Medicine. Physiology will comprehend the Doctrines of Physics, illustrative of animal structure and function. Any candidate who so desires shall be admitted to the two Professional examinations at different terms, viz.:—to the first examination, at the end of his third year of Medical classes; and, provided he be twenty-one years of age, to the second examination, at the end of his fourth year. But no longer interval than two years will be allowed to intervene between the two examinations, without a full renewal of the previous one.

Fees.—For the Degree of Bachelor of Medicine, £16 5s.; for the Degree of Doctor of Medicine, £26 5s.

The various courses delivered at this University qualify for examination here, and at all the Universities of the United Kingdom; the Royal College of Surgeons, of England, Edinburgh, and Ireland; the Apothecaries' Hall, London; and the Medical Boards of the Army and Navy, and Hon. East India Company.

Regulations regarding Practitioners.—It will be held equivalent to the Curriculum prescribed in the foregoing Regulations, to have obtained a Diploma or Licence in Medicine or in Surgery, from any authority established by law within the United Kingdom, and to have subsequently attended Medical Classes in this University during one Winter Session. The Degree of Bachelor of Medicine may be conferred on any candidate who has passed the prescribed examinations. The Degree of Doctor of Medicine may be conferred on any candidate, after passing the prescribed examinations, who is twenty-two years of age, or on any candidate who has been at least twelve months a Bachelor of Medicine of this University, after residing therein. Graduates who have attended the several Medical Classes in this University will be charged no Graduation Fees for the Degree of Bachelor.

The Lunatic Asylum, under the care of Dr. Macrobin, Consulting Physician, and Dr. Robert Jamieson, Resident Physician, contains 280 patients. A limited number of Pupils is permitted to witness the practice pursued in this Asylum, in the treatment of mental disease. A course of clinical instruction in the treatment of insanity is given during the Summer Session by Dr. Jamieson, the Medical Superintendent. Fee, £2 2s.

Besides the College Library, there is in the Hall of the Medico-Chirurgical Society of Aberdeen, a Medical Library, containing 4000 volumes, with a Reading Room attached. Admission to the Society by ballot. Terms for Students, £1 1s. yearly.

FACULTY OF PHYSICIANS AND SURGEONS, GLASGOW.

The regulation-examination days are on the first and third Tuesdays of every month.

REGULATIONS REGARDING THE GRANTING OF THE DIPLOMA IN SURGERY.

Preliminary Instruction.—Every candidate for the diploma of this faculty must produce evidence of his having attained the age of 21 years. He must, either previously to or during his Medical education, have received regular instruction in Latin and Mathematics; and must have subsequently attended a course of Natural Philosophy of at least three months' duration.

Professional Instruction.—The candidate must have been engaged in attending the following separate and distinct courses of lectures during a period of not less than twenty-seven months, in which must have been included three winter sessions of six months' duration each: Anatomy, Practical Anatomy, and Surgery, of each two courses of six months (or Surgery and Military Surgery one course of six months each); Chemistry, one course of six months; Practical Chemistry, one course of three months; Institutes of Medicine, Practice of Medicine, Materia Medica, Midwifery, and Diseases of Women and Children, one course of six months each; Medical Jurisprudence and Botany, one course of three months each; General Hospital, with at least eighty beds, twenty-one months; Practical Pharmacy, six months.

The Faculty recommend the following, viz.: Lectures on the Eye, and Hospital for Eye Diseases (a three months'

course of lectures on the eye, with six months' attendance on an eye hospital, containing at least 12 beds for operation cases, will be considered equivalent to three months of a general hospital), Lying-in Hospital, Hospital for Syphilitic Diseases, Pathological Anatomy, Natural History, and Comparative Anatomy, Greek, French, German, and Italian.

Each candidate shall be examined, partly orally, and partly by written question and answer, without the use of books. He shall translate Latin, write prescriptions, and be examined in preparations. The committee of Examiners being satisfied with these trials, the candidate shall be entitled to his diploma, on taking and subscribing to the declaration authorized by law, in place of extra-judicial oaths.

The Faculty Registrar is open during the months of November, for the signatures of those Students who wish to obtain the diploma, and the classes attended by each during the current session.

An examination in Latin will be held on the second and following Saturdays in December.

The regulation examination days are the first and third Tuesdays in each month.

The fee for the diploma is 10*l*.

UNIVERSITY OF ST. ANDREWS.

REGULATIONS OF THE SENATUS ACADEMICUS

RESPECTING THE EDUCATION OF CANDIDATES FOR THE DEGREE OF DOCTOR OF MEDICINE.

1. Every candidate for a diploma in Medicine, upon presenting himself for examination, shall produce satisfactory evidence—1. Of unexceptionable moral character. 2. Of having had a liberal and classical education. 3. Of having completed the twenty-second year of his age.

II. Fellows, Members, and Licentiates of the Royal Colleges of Surgeons of England, Edinburgh, and Dublin—of the Royal College of Physicians of London—of the Faculty of Physicians and Surgeons of Glasgow—and of the London Apothecaries' Company—are eligible as candidates for the degree of Doctor of Medicine, on producing their diploma or licence.

N.B.—Notice to Students.—In 1860, the following regulation will come in force:—Every candidate whose diploma or licence bears a date later than 1859, will also be required to produce satisfactory evidence from the Physicians in attendance, that he has regularly attended the Medical Practice of a recognised Hospital for at least eighteen months.

III. Candidates not holding any of the qualifications enumerated in the above clause, must produce satisfactory proof that they have regularly attended lectures delivered by Professors in some University, or by Fellows of the Royal Colleges of Physicians or Surgeons of London, Edinburgh, or Dublin, for four complete Winter Sessions, or for three Winter and three Summer Sessions, on the following branches:—

1. Anatomy, 2 courses of six months each. 2. Practical Anatomy or Dissections, twelve months, 3. Physiology, 1 course of six months. 4. Chemistry, 1 course of six months. 5. Practical Chemistry, 1 course of three months. 6. Botany, 1 course of three months. 7. Natural History or Comparative Anatomy, 1 course of three months. 8. Materia Medica and Pharmacy, 1 course of three months. 9. Midwifery and Diseases of Women and Children, 1 course of three months. 10. Medical Jurisprudence, 1 course of three months. 11. Surgery, 1 course of six months. 12. Clinical Surgery, 1 course of six months. 13. Practice of Medicine, 1 course of six months. 14. Clinical Medicine, 1 course of six months. And that they have diligently attended for at least two entire years the Medical Practice in some Public Hospital in Great Britain or Ireland, containing not less than one hundred beds, and having a regular establishment of Physicians, as well as Surgeons.

REGULATIONS RESPECTING THE EXAMINATIONS.

Examiners for Degrees in Medicine.—George E. Day, M.D., F.R.S., Professor of Anatomy and Medicine; Arthur Connell, F.R.S.S., L. and E., Professor of Chemistry; William Pyper, LL.D., Professor of Latin.

Assistant Examiners.—Andrew Anderson, M.D., Professor of Medicine in the Andersonian University, Glasgow; William T. Gairdner, M.D., F.R.C.P., Lecturer on the Practice of Medicine, and on Clinical Medicine, Edinburgh.

The examinations take place twice in the year, commencing on the first Monday in May, and the third Monday in October. (a) The graduation fee is Twenty-five Guineas. In the event of a candidate being found unqualified, he shall forfeit one-third of the graduation fee; which, however, will be accounted for to him when he passes his examination at a subsequent trial.

Candidates can only be admitted to examination at other periods by a special grace of the Senatus Academicus. The graduation fee in this case is Fifty Guineas.

All candidates are required to give a written translation of a passage from Celsus, to write prescriptions in Latin with accuracy, and to be so far acquainted with Greek as to be able to give the meanings of scientific and Medical terms derived from that language.

The examination by printed papers extends over three days, after which each candidate is submitted to an oral examination.

During the first two days of the examination, by printed papers, the candidates answer questions on (1) Chemistry and Materia Medica; (2) Anatomy and Physiology; (3) The Practice of Medicine; (4) The Principles of Surgery and Midwifery. On the third day, they are required to write a short Commentary on a Medical and on a Surgical or Midwifery case.

The Degree is conferred, at the conclusion of the oral examinations, by the Rector, in the Hall of the Public Library of the University, and the Diplomas are signed by the Professors of the University.

Every candidate is required to present himself for registration to the Secretary, on or before the Saturday preceding the examination, and to communicate by letter with the Professor of Medicine, at least a fortnight previously, stating what Diploma or Certificates he intends to produce.

As the examiners receive very frequent applications respecting the course of reading to be pursued, they beg to recommend the following works as especially deserving of perusal:—Fownes's Manual of Chemistry. (Candidates who have been long engaged in practice, are expected to possess, at least, a knowledge of the general principles of the science, and an acquaintance with the ordinary chemical compounds used in Medicine.) Christison's Dispensatory, or Pereira's Materia Medica (especially the sections treating of the mode of action, usess, and administration of Medicines); and the London, Edinburgh, or Dublin Pharmacopœia. Quain's Elements of Anatomy, or Wilson's Anatomist's Vade-Mecum. Carpenter's Principles of Human Physiology, or Kirkes's Hand-Book of Physiology. Watson's Lectures on the Principles and Practice of Physic, or Wood's Practice of Medicine, and Williams's Principles of Medicine. Miller's Principles and Practice of Surgery, or Fergusson's System of Practical Surgery. Churchill on the Theory and Practice of Midwifery.

It has been resolved that, after the present year (1857), those candidates who have acquitted themselves creditably in the first two days' examination will be allowed to compete for Honours. Candidates for Honours will be additionally examined in Comparative Anatomy and Physiology, in the higher departments of Human Physiology and Pathology, and in Medical Jurisprudence; and their practical knowledge of Medicine will be tested at the bedside.

FACULTY OF MEDICINE IN IRELAND.

UNIVERSITIES, COLLEGES, COURSES OF STUDY, DEGREES AND LICENSES TO PRACTISE.

The following bodies grant one or more degrees or licences to practise Medicine or Surgery, and provide courses of instruction in the Medical sciences:—The University of Dublin with the Medical School of Trinity College. This University grants the degrees of M.B. or Bachelor of Medicine, and M.D. or Doctor of Medicine, and also a Surgical diploma. The Queen's University in Ireland, with its Provincial Colleges at Cork, Belfast, and Galway; this University confers the degree

(a) In the present year (1857), the autumn examination will commence on the third Wednesday in October, and candidates must present themselves for registration on the previous day.

of M.D. The King and Queen's College of Physicians in Ireland, granting a licence and fellowship. This institution, in connexion with the Medical Faculty of the University of Dublin, constitutes the School of Physic in Ireland. The Royal College of Surgeons in Ireland, which grants letters testimonial, qualifying to practise Surgery as a Licentiate, and also confers a Fellowship. The Rotunda Lying-inn Hospital, which grants a diploma in Midwifery. The Governor and Company of the Apothecaries' Hall of Ireland.

The Medical Session in Ireland commences about the first week in November.

UNIVERSITY OF DUBLIN.

Medical School of Trinity College.—The Medical degrees in this University are granted on Shrove Tuesday and the first Tuesday in July. The degree of M.B. or Bachelor of Medicine, qualifying to practise and conferring the courtesy title of "doctor," may be obtained by all candidates who have graduated in Arts, and who have completed the requisite Medical courses, and passed the Board of Examiners, consisting of the Professors of the School of Trinity College, and certain of the Professors and officers of the King and Queen's College of Physicians in Ireland. The Medical courses required of candidates for the degree of M.B. are Anatomy and Physiology, Practice of Medicine, Surgery, Chemistry, Botany, Materia Medica, and Pharmacy, Institutes of Medicine, Midwifery, Medical Jurisprudence, Practical Anatomy and Practical Chemistry, Clinical Lectures at Sir P. Dun's Hospital during one session of six months, and three summer months, and also attendance for one session on the practice of a general hospital. At least one, and not more than three, of the above courses of lectures must be attended in each of four sessions; and three of the courses, at the option of the candidate, may be attended in the University of Edinburgh. The fees for each course are 3*l.* 3s.; but those graduating in Arts in the University are allowed to attend and receive certificates for one of each of the required Medical courses gratuitously.

The graduation fees are, for the degree of M.B., 11*l.* 17s. 6d., exclusive of stamp duty; and for the degree of M. D., which may be taken without further examination in three years after the M.B., 22*l.* exclusive of stamp duty.

THE QUEEN'S UNIVERSITY IN IRELAND,

granting the degree of M.D., is the centre or head of the Provincial Colleges of Cork, Belfast, and Galway, each of which possesses a Faculty of Medicine. Candidates must matriculate in Arts, previous to which an examination in a prescribed course of study must be proved. The curriculum of Medical study extends over a period of at least four years, and is subdivided into two periods of at least two years each; the first period comprises attendance on Chemistry, Botany and Zoology, Anatomy and Physiology, Practical Anatomy, Materia Medica, and Pharmacy. The second period comprises attendance on Anatomy and Physiology, Practical Anatomy, Theory and practice of Surgery, Midwifery and Diseases of Women and Children, Theory and Practice of Medicine, Medical Jurisprudence. Also, during the first period, Practical Chemistry in a recognised laboratory during three months, and the practice during six months of a Medico-Chirurgical Hospital, containing at least sixty beds, together with Clinical Lectures delivered therein. During the second period, three months' practical Midwifery in a recognised Hospital, with not less than thirty beds; three months' Practical Pharmacy; and eighteen months' practice of a Medico-Chirurgical Hospital, containing at least sixty beds, and in which Clinical Instruction is delivered. Two examinations must be passed by candidates for the degree of M.D. One comprising the subjects of study of the first period; the other the subjects of study of the second period. At least one-third of the above courses must be attended in some one of the Queen's colleges; the remainder may be taken at the option of the candidate, in any School, College, or University recognised by the senate of the Queen's University. The examinations are conducted partly by written papers, partly by *vivâ voce* questions.

CATHOLIC UNIVERSITY, DUBLIN.—MEDICAL FACULTY.

SCHOOL OF ANATOMY, MEDICINE, AND SURGERY,
Cecilia-street, Dame-street.

The Winter Session for 57-58 will commence on the 1st of October, with Practical Anatomy.

The Lectures will commence on 3rd of November, and terminate in April, 1858.

Anatomy and Physiology, Human and Comparative—Thomas Hayden, F.R.C.S.I., and Robert Cryan, L.R.C.S.I., and K., and Q.C.P.I.

Chemistry—William K. Sullivan, Dr. Ph.

Theory and Practice of Surgery—Andrew Ellis, F.R.C.S.I.

Practice of Medicine and Pathology—Robert D. Lyons, M.B., T.C.D., L.R.C.S.I., and M.R.I.A.

Materia Medica—Robert M'Dermott, A.B , M.B., T.C.D., and M.R.I.A.

Medical Jurisprudence—Stephen M. M'Swiney, M.D. L.K., and Q. Col. Phys., and M.R.C.S.E.

Natural Philosophy—Henry Hennessy, M.R.I.A.

Demonstrators of Anatomy—Henry Tyrrell, L.R.C.S.I., and Francis Quinlan, L.R.C.S.I.

This School being duly licensed according to the provisions of the "Anatomy Act," and conducted in conformity with the Bye-laws, Rules, and Regulations, of the various Medical Bodies in Great Britain and Ireland, authorized to grant Degrees, Diplomas, and Licences in Medicine, Surgery, and Pharmacy, the Certificates issued by its Professors for attendance on lectures are recognised as legal documents, entitling the possessor to an examination for any of the foregoing qualifications.

SCHOOL OF PHYSIC IN IRELAND.

Under this head are comprised the educational establishments, partly on the foundation of Trinity College, and partly on the foundation of the late Sir P. Dun, in connexion with the King and Queen's College of Physicians in Ireland.

THE KING AND QUEEN'S COLLEGE OF PHYSICIANS IN IRELAND.

This College grants a Licence and Fellowship. Candidates must produce a certificate of matriculation in the University of Dublin, unless they have been students of Arts in the Universities of Oxford, Cambridge, or Dublin; also proof of having been engaged for at least four years in the study of medicine, of having attended not less than two of the required courses in each year. These courses are Anatomy and Physiology, Chemistry, Institutes of Medicine, Materia Medica and Pharmacy, Practice of Medicine, Midwifery and Diseases of Women and Children, Surgery, Botany, and Medical Jurisprudence; of the two last, courses of three months each; of the remainder, courses of six months each; besides which, six months' dissections with demonstrations, and three months' practical chemistry, are required. The lectures must have been attended with the Professors of the School of Physic, or others recognised by the College. Hospital attendance for two years and six months, and six months' practice of a Lying-in Hospital are also necessary.

Graduates in Medicine (not honorary) of one of the Universities of the United Kingdom, Licentiates of the Royal College of Physicians of London or Edinburgh, officers holding medical or surgical commissions in Her Majesty's service, Licentiates of a College of Surgeons, of four years' standing, those who hold the surgical diploma of Trinity College, Dublin, or Licentiates of a College of Surgeons in the United Kingdom, producing, in addition to their diploma, certificates of attendance on a course of lectures on the Institutes of Medicine and Botany, and on the Practice of a Lying-in Hospital for six months, are admissible to examination on producing evidence of their possessing any of the foregoing qualifications, in addition to the certificate of Matriculation in the University of Dublin. The examination is conducted on two different days; those who, in addition to the qualifications just enumerated, are also Graduates in Arts of the Universities of Dublin, Oxford, or Cambridge, are required to undergo the second day's examination only, Botany and Materia Medica being added in the case of members of a College of Surgeons.

By a recent regulation of this College, every person receiving its licence is obliged to make a solemn declaration to observe its laws and ordinances, and among other things he solemnly engages not to practise any system or method (so-called) for the cure or alleviation of diseases of which the College has disapproved; nor to endeavour to obtain practice, or to attract public notice by advertising, or by any other unworthy means; "I also engage that I will neither permit nor sanction the use of my name by any other party for such purposes, nor in connexion with any secret or other remedy; and in case of any

doubt relative to the true meaning or application of this engagement, I promise to submit to the judgment of the College." By the Dublin College of Physicians this regulation has been carried out in the letter and in the spirit.

ROYAL COLLEGE OF SURGEONS, IRELAND.

PROFESSORS.

Anatomy and Physiology: Dr. Jacob.
Descriptive Anatomy: Dr. Power and Dr. Bevan.
Surgery: Mr. Porter and Mr. Hargrave.
Practice of Medicine: Dr. Benson.
Chemistry: Dr. Barker.
Materia Medica: Dr. Williams.
Midwifery: vacant.
Medical Jurisprudence: Dr. Geoghegan.
Practical Chemistry: Dr. Barker.
Comparative Anatomy: Dr. Jacob.
Botany: Dr. Mitchell.
Military Surgery: Mr. Tuffnell.
Logical Science: John Murray, A.M., LL.D.

Fellows of the College are Members of the Corporation, and are admitted by examination; letters testimonial are granted to Licentiates, and a diploma in Midwifery to Fellows and Licentiates educated and examined in that branch of Surgery.

Candidates for the Fellowship must be twenty-five years of age, and must give proof of liberal preliminary education and good conduct during professional education. They are required to produce certificates of Surgical studies for six years (three of which must be for exercises in Dublin), and also of practice as House-Surgeon or dresser in an hospital; as well as certificates of attendance on hospitals, lectures, and dissections, as required from Licentiates; with the addition of Botany, Comparative Anatomy, and Natural Philosophy. Fee, £26 5s.; if the candidate be a Licentiate, £10 10s.

Candidates for Letters Testimonial are required to produce certificates of preliminary classical education, of four years' professional study (three of them in metropolitan schools), also three years' attendance on hospital lectures and dissections. Fee, £21.

Candidates for the Midwifery Diploma must be Fellows or Licentiates of the College, are required to produce certificates of attendance on midwifery lectures and practice, with proof of having attended thirty cases of parturition.

Candidates for the Fellowship and Letters Testimonial are publicly examined on two separate days, in Anatomy, Physiology, Surgery, Practice of Medicine, and Pharmacy. The examiners are elected by a sworn jury of the council appointed by lot, teachers being ineligible. Fellows and Licentiates of the College are qualified to practise as Surgeons in any part of the British dominions, and to be appointed Medical officers to the army and navy, public hospitals, infirmaries, dispensaries, and workhouses.

THE APOTHECARIES' HALL OF IRELAND.

Every candidate must undergo two separate examinations, one for the certificate of Apprentice, the other for the licence to practise. Every candidate for the certificate of Apprentice will be examined in the following books:—In Latin—The Catiline War of Sallust, and the first three books of the Æneid of Virgil: in Greek—the Gospel of St. John and the first twenty Dialogues of Lucian, or the first two books of Homer's Iliad; in French—Telemachus, or the History of Charles XII.; in Science—the first two books of Euclid, and Algebra, to the end of Simple Equations; in Arithmetic, especially decimals; and in English composition. Every candidate for the licence to practise as an Apothecary must lay before the Court the following documents:—1. The Certificate of Apprentice. 2. The Indenture of Apprenticeship for five years, enrolled according to the Act of Parliament, and bearing the certificate of the Licentiate Apothecary to whom he has been indentured, of a good moral character, and of having fulfilled the period of his Apprenticeship. 3. Certificates duly signed that he has diligently attended the following courses of Lectures, delivered at some school of Medicine recognised by the Court:—(The order of study here laid down is recommended for the guidance of Students,) Chemistry (six months), Anatomy and Physiology (twelve months), Practical Chemistry, (a) Botany and Natural History (three months), Materia Medica (six months) (b), Demonstrations and Dissections (twelve months), Theory and Practice of Physic, Surgery, Midwifery, and the Diseases of Women and Children (six months), Medical Jurisprudence (three months).

Attendance for the entire period of eighteen months, on the Medical and Surgical practice in an Hospital or Hospitals recognised by the Court, with a certificate of attendance on thirty cases of Midwifery.

The examination for the licence to practise as an Apothecary will be as follows:—In Chemistry and General Physics; in Pharmacy, Theoretical and Practical; in Materia Medica and Therapeutics; in Natural History and Medical Botany; in Anatomy and Physiology; in the Theory and Practice of Medicine; in Midwifery; in Medical Jurisprudence.

Gentlemen who are Graduates in Medicine of any of the British or Irish Universities, or who possess letters testimonial from any of the Royal Colleges of Surgeons in Great Britain or Ireland, will be admitted to examination for the licence of the Hall, on producing proofs of three years' legal apprenticeship to a qualified Apothecary, practising in Ireland, and of a professional education equal to the curriculum prescribed by the Council. Licentiates of the London Hall are also eligible. The examination for the certificate to act as Assistant to an Apothecary in compounding and dispensing medicine will be confined to Chemistry and Theoretical and Practical Pharmacy. The candidate for the Assistant's certificate may present himself for examination at the termination of three years' apprenticeship. The Court of Examiners sits every Friday, at two o'clock, and proceeds with the examination of candidates in the order in which their names appear on the list. Candidates are obliged to lodge their testimonials a clear week before the day of examination. A rejected candidate cannot be re-admitted to examination until the expiration of six months. An examination of Apothecaries' apprentices takes place at the Hall in the first week in May, annually, upon some subject in Pharmaceutic or Physiological Analysis, which is publicly announced by the Court at the commencement of the previous winter session, and a prize of five guineas is awarded to the successful competitor.

Rotunda Lying-in Hospital, Dublin.—This Institution, a monument of the philanthropy of the late Dr. Moore, contains nearly 150 beds. Upwards of 2000 women are annually delivered. There is a museum and lecture-room, and clinical courses are delivered in winter and summer. There is accommodation for 60 intern pupils: fees for interns, 20 guineas; for externs, 10 guineas.

Coombe Lying-in Hospital and Anglesea Lying-in Hospital.—Instruction in Midwifery is given in both these Institutions.

(a) The Practical Chemistry must be attended in a Laboratory, and no certificate will be received by the Court that does not testify that the candidate has prepared the several Pharmacopœial Preparations which are usually made in the Laboratory.

(b) The Materia Medica if attended in summer must consist of two courses of three months' duration each.

GENERAL HOSPITAL STATISTICS.

	No. of Beds.	Days of Operation.	Average No. of Inmates 1851.
St. Bartholomew's	650	Saturdays at 1½	522
St. Thomas's	520	Saturdays at 1	449
Guy's	549	Tuesdays at 1	475
Westminster	175	Tuesdays at 2	131
St. George's	325	Thursdays at 1	275
London	400	Thursdays at 1½	308
Middlesex	300	Thursdays at 12½	255
University	120	Wednesdays at 2	86
Charing-cross	100	Saturdays at 1	100
King's	120	Saturdays at 2	106
St. Mary's	150	Wednesdays at 1	...

TO CORRESPONDENTS.

In order to give all the information peculiar to our "Students' Number" in this week's impression, we are compelled to defer until our next many matters of interest, and also Answers to Numerous Correspondents.

Our best thanks are tendered to the Secretaries and Registrars of the various Medical Colleges and Schools, for their prompt attention to our inquiries.

CLASSES AND LECTURERS AT THE LONDON, PROVINCIAL, AND SCOTTISH MEDICAL SCHOOLS.

	Anatomical Demonstrations.	Anatomy, Descriptive and Surgical.	General Anatomy & Physiology.	Chemistry.	Materia Medica and Therapeutics.	Principles & Practice of Medicine.	Principles & Practice of Surgery.	Midwifery & Diseases of Women & Children.	Botany.	Medical Jurisprudence.	Comparative Anatomy.	Natural Philosophy.	Practical Pathology	Microscopical Anatomy.	Dentistry.	Ophthalmic Surgery.	Practical Chemistry.
St. Bartholomew's ...	Mr Holden, Mr Savory	Mr Skey	Mr Paget	Dr Frankland	Dr Farre	Dr Burrows Dr Baly	Mr Lawrence	Dr West	Dr Kirkes	Dr Black	Mr M'Whinnie		Mr Callender & House Surgeons				Dr Frankland
St. Thomas's (a)	Mr Rainey, Mr Ord Mr Tyrrell	Mr Clark Mr Rainey	Mr Grainger Dr Brinton	Dr Thomson	Dr Peacock	Dr Bennett	Mr South	Dr Waller	Dr Bristowe	Dr Brinton	Mr Jones		Mr Simon	Mr Rainey	Mr Patient	Mr. Macmurdo.	Dr Thomson
Guy's(e) ..... *Winter* ...	Mr B. Brown Mr Maunder	Mr Poland, Mr Forster	Dr Pavy	Dr Taylor	Dr Habershon	Dr O Rees Dr Gull	Mr Hilton Mr Birkett	Dr Lever Dr Oldham	Mr Johnson	Dr. Taylor	Dr Pavy	Mr Brown	Dr Wilks	Dr Pavy	Mr Salter	Mr France	Dr Odling
Westminster	Mr C Heath	Mr Holthouse	Mr Hillman	Mr H Lewis,	Dr Radcliffe	Dr Basham	Mr Brooke Mr B. Holt	Dr F Bird	Mr Syme	Dr. Fincham Dr Marcet		Mr Brooke					Mr H Lewis
St. George's	Dr Hastings Mr Hart	Mr Pollock Mr H Gray	Mr Johnson	Dr Noad	Dr Barclay	Dr Page Dr Pitman	Mr Tatum	Dr R Lee	Mr Masters	Dr Fuller				Dr Ogle		Mr Tatum Mr Johnson	Dr Noad
Grosvenor-pl School, adjoining St. George's...	Dr Halford	Mr W Adams Dr Halford	Dr Richardson	Mr Rodgers	Dr Leared	Dr Lankester	Mr T S Wells Mr W Adams	Mr Bloxam	Dr Lankester	Dr F Webb	Mr Hulme		Dr Cockle	Dr Webb	Mr Hulme	Mr T S Wells	Mr Rodgers
London	Mr Gowlland Mr Harkness	Mr Adams	Dr A Clark	Dr Letheby	Dr H Davies	Dr N Parker	Mr Curling Mr Critchett	Dr Ramsbotham	Mr Bentley	Dr Ramsbotham, Dr Letheby	Mr Down			Dr Clark	Mr Barrett		Dr Letheby
Middlesex ...	Mr Nunn, Mr Flower	Mr Moore	Mr De Morgan	Mr T Taylor Mr Heisch	Dr H Thompson	Dr Stewart Dr Goodfellow	Mr Shaw	Dr Frere	Mr Bentley	Dr Goodfellow Mr Henry	Mr Flower		Mr Nunn Mr Sibley	Dr Van der Byl			Mr Taylor Mr Heisch
University College ...	Mr Ellis & Mr E W Thomas	Mr Ellis	Dr Sharpey	Dr Williamson	Dr Garrod	Dr Walshe	Mr Erichsen	Dr Murphy	Dr Lindley	Dr W B Carpenter	Dr Grant (d)	Prof Potter	Dr Jenner	Dr G Harley	Mr Shelley	Mr W Jones	Dr Williamson
Charing-cross	Mr Goldsbro	Mr E Canton	Dr H Salter	Mr Lewis	Dr Steggall	Dr Chowne Dr Willshire	Mr Hancock	Dr Chowne Mr Hird	Mr Syme	Dr Birkett Mr Hird	Mr Barwell						Mr Lewis
King's College	Mr Lee Mr Wood	Mr Partridge	Dr Beale	Dr Miller Mr Hadow	Dr G Johnson	Dr Budd	Mr Fergusson	Dr A Farre	Mr Henfrey	Dr Guy	Mr T R Jones		Dr Beale				Mr Bloxam
St. Mary's(e)	Mr Gascoyen	Mr Blenkins Mr Lane	Mr Lane Mr Blenkins Mr Jas. Lane	Dr Bernays	Dr Sieveking	Dr Chambers Dr Sibson	Mr Coulson Mr S Smith	Dr T Smith Mr Brown	Dr Cobbold	Dr Sanderson	Dr Hewitt	Mr Smalley	Dr Markham			Mr W Cooper	Dr Bernays

(a) Clinical Lectures by Dr Barker; Public Health, Dr Greenhow. (b) Microscopical Demonstrations. (c) Demonstrations on Cutaneous Diseases by Dr. Addison and Dr. Gull; Mondays at 1. (d) And Palæo-Zoology.
(e) Clinical Medicine by Dr Alderson; Clinical Surgery by Mr. Ure; Military Surgery, Tropical Medicine, and the Hygiene of Fleets and Armies, by Dr. James Bird; and Aural Surgery by Mr. Toynbee.

CLINICAL LECTURES on Medicine and Surgery are now delivered in almost every Hospital attached to a Medical School.

Queen's Col. Birminghm.	Mr Pemberton Mr. Jordan	Mr S Cox Mr Bolton	Dr Heslop	Mr Shaw	DrHemming Mr Knowles	DrJohnstone	Mr S Cox	Mr Berry	Mr Knowles	Dr Davies	Dr Jordan						Mr Shaw
Sydenham Coll., Birm.	Mr Jones Mr Johnson	Mr Elkington Mr Jones	Dr Keyworth	Dr Wrightson	Mr Bassett	Dr Fletcher	Mr A Baker	Dr Elkington Mr Blake	Mr Westcott	Mr Orford			Dr Russell				Dr A Hill
Newcastle-on-Tyne Col. of Medicine in connexion with Univ. of Durham (b)	Mr M'Nay	Mr M'Nay	Dr Embleton Mr Gibb Mr Wilson	Dr Richardson Mr Browell	Dr Humble	Dr Charlton Dr Embleton Dr Robinson	Dr Heath	Mr Frost Dr Gibson Dr Dawson	Mr Thornhill Mr Oliver Mr Sanderson	Dr Pearse Mr Robinson Mr Chater			Dr Fenwick Mr Gibb				Dr Richardson Mr Browell
Sheffd. Med. Institution	Mr Walker	Mr Walker	Mr Gregory Mr Skinner Mr Allanson Mr Favell	Dr Bingley	Dr Shearman Dr Jackson	DrBartolome Dr Law	Mr Barber	Mr Jackson	Mr Walker	Dr Law							Dr Bingley
Leeds Schl. of Medicine	MrTeale,jun	Mr Priee Mr Wheelhouse	Mr Ikin Mr Price Mr Wheelhouse	Mr Morley Mr Scattergood	Mr Bishop	Dr Chadwick Dr Heaton	Mr Hey MrNunneley	MrSmith, Mr Braithwaite	Mr W Hall	Dr P Smith						Mr Nunneley (c)	Mr Scattergood
Bristol Med. School.....	MrC Leonard Mr Clarke	Mr Coe MrC Leonard	Dr Martyn	Mr Herapath	Dr Burder	Dr Brittan	Mr Clark Mr Prichard	Dr Swayne	Mr Clark	Mr Clarke Mr Herapath							Mr Herapath
Liverpool Royal Infir.	Mr Waters	Mr Waters	Mr Fletcher	Dr J B Edwards	Dr Nevins	Dr Inman	Mr Long	Mr Batty, Mr Grimsdale	Mr Archer	Dr Cameron Dr Edwards			Mr Fletcher Mr Waters			Dr Taylor	Dr Edwards
York School of Medicine	Mr Hornby Mr North	Mr Hornby Mr North	Mr Allen Mr Hornby	Mr Procter	Dr Williams Mr Moore	Dr Swaine	Mr Hey, Mr Keyworth	Mr Allen Mr Anderson	Mr Moore	Mr Procter				Mr Hornby			
Hull & East Riding Schl. of Medicine	Dr King	Dr King	Mr Craven	Mr Beckett	Mr Carnley	Dr Daly	Mr Gibson	Mr H Gibson	Mr Nevins	Mr Munroe							Mr Beekett
Manches. Rl. Schl. of Med. and Surgery	Mr Lund	Mr Lund Mr Heath	Mr Turner Mr Smith Dr Roberts	Mr Stone	Mr Somers	Dr Watts Dr Browne	Mr Dumville Mr Southam	Mr Heath Dr Whitehead	Mr Grindon	Mr Greaves Mr Harrison							Mr Stone
University of Edinburgh	Prof Goodsir	Prof Goodsir	Dr Bennett	Dr Gregory	Dr Christison	Dr Laycock	Prof Syme Prof Miller	Dr Simpson	Dr Balfour	Dr Traill	Prof Goodsir	Prof Forbes	Dr Henderson	Dr Bennett			Dr Gregory
Surgeons' Hall, Edin.	Dr Struthers	Dr Struthers	Dr Sanders	Dr Maeadam	Dr Maclagan	Dr Gairdner	Mr Spence Mr Lister	Dr Keiller Dr Duncan		Dr Littlejohn	Dr Struthers	Mr Lees	Dr Haldane		Dr J Smith	Mr Walker	Dr Maeadam
Anderson's U., Glasgow	Drs Buchanan	Drs Buehanan	Dr E Watson	Dr Penny	Dr Morton	Dr Anderson	Dr Hunter	Dr Paterson	Dr Bell	Dr Cowan		Dr Taylor					Dr Penny
Marischal Coll. and U., Aberdeen (d)	Prof Lizars	Prof Lizars	Dr Ogilvie	Dr Clark Mr Brazier	Dr Henderson	Dr Maerobin	Mr Pirrie	Dr Dyce	DrBeveridge	Dr Ogston	Mr Nicol			Dr Ogilvie			Dr Clarke Mr Brazier
University & King's Coll., Aberdeen (e	Dr Redfern	Dr Redfern	Dr Christie	Dr Fyfe	Dr Rattray	Dr Williamson	Dr Kerr	Dr Rainy	Rev J C Brown	Dr Reid		Mr Thomson		Dr Redfern		Mr Cadenhead	Dr Fyfe
University of Glasgow.....	Dr Thomson	Dr Thomson	Dr Thomson	Dr Anderson	Dr Easton	Dr Macfarlane	Dr Lawrie	Dr Pagan	Dr Arnott	Dr Rainy						Dr Mackenzie	Dr Anderson

(a) Military Surgery, by Sir John Fife. (b) And Mental Diseases, Dr. Mackintosh; Dietetics, Dr. Humble; Medical Ethics, Dr. Greenhow. (c) And Aural Practice.
(d) And Dietetics and Hygiene, Dr. Henderson; and Natural History, Professor Nicol. e) Institutes of Medicine (Physiology) Dr. Christie; and Natural History, Rev. J. Longmuir.

TABLE OF FEES TO THE LECTURES REQUIRED BY COLLEGE AND HALL.

	Anatomy, Descriptive and Surgical.			Structural and General Anatomy and Physiology.			Chemistry.			Materia Medica and Therapeutics.			Principles and Practice of Medicine.			Principles and Practice of Surgery.			Midwifery and diseases of Women and Children.			Botany.			Medical Jurisprudence.			Practical Chemistry.	
No. of Courses required by College and Hall	3			3			1			1			2			2			2			1			1			1	
—	One Course.	Two Courses.	Perpetual.	One Course.	Two Courses.	Perpetual.	One Course.	Two Courses.	Perpetual.	One Course.	Two Courses.	Perpetual.	One Course or Session.	Two Courses.	Perpetual.	One Course or Session.	A Second Course.	Perpetual.	One Course.	Two Courses.	Perpetual.	One Course.	Two Courses.	Perpetual.	One Course.	Two Courses.	Perpetual.	One Course.	Perpetual.
	£ s.	£ s.	£ s.	£ s.	£ s.	£ s.	£ s.	£ s.	£ s.	£ s.	£ s.	£ s.	£ s.	£ s.	£ s.	£ s.	£ s.	£ s.	£ s.	£ s.	£ s.	£ s.	£ s.	£ s.	£ s.	£ s.	£ s.	£ s.
St. Bartholomew's	5 5	7 7	10 10	5 5	7 7	10 10	5 5	...	7 7	4 4	...	6 6	5 5	...	7 7	5 5	3 3	7 7	4 4	...	6 6	3 3	...	4 4	3 3	...	4 4	2 2	3 3
St. Thomas's	First and Second Year, £40 each, and every succeeding year, £10; perpetual to the whole, £90.																											
Guy's	Entire Lectures and Hospital Practice—First year, £40; second, £40; every succeeding year, £10; perpetual, £100.																											
Westminster	5 5	...	7 7	5 5	...	7 7	5 5	...	7 7	3 3	...	4 4	4 4	...	5 5	4 4	...	5 5	3 3	...	4 4	2 2	...	3 3	2 2	...	3 3	2 2	...
St. George's	6 6	...	8 8	6 6	...	8 8	6 6	...	8 8	5 5	...	6 6	5 5	...	6 6	4 4	...	6 6	4 4	...	6 6	3 3	...	4 4	3 3	...	4 4	4 4	...
Grosvenor-place School of Anatomy & Medicine ...	6 6	...	8 8	6 6	...	8 8	5 5	...	6 6	5 5	...	6 6	5 5	...	6 6	5 5	...	6 6	3 3	...	6 6	3 3	...	4 4	3 3	...	4 4	3 3	...
London	5 5	...	8 8	4 4	...	7 7	7 7	...	7 7	3 3	...	4 4	4 4	...	7 7	4 4	...	6 6	4 4	...	6 6	3 3	...	4 4	3 3	...	4 4	2 2	3 3
Middlesex	8 8(a)	...	11 11(a)	4 4	...	6 6	6 6	...	8 8	3 3	...	5 5	4 4	...	6 6	4 4	5 5	6 6	3 3	...	5 5	3 3	...	4 4	3 3	...	5 5	3 3(b)	...
University	6 0	...	9 0	6 0	...	9 0	6 0	...	9 0	4 0	...	6 0	5 0	...	8 0	4 10	...	6 0	4 0	...	6 0	3 0	...	6 0	3 0	...	...	4 0	...
Charing-cross	4 4	6 6	7 7	4 4	6 6	7 7	5 5	6 6	7 7	4 4	5 5	6 6	4 4	6 6	7 7	3 3	5 5	6 6	3 3	5 5	6 6	2 2	3 3	4 4	3 3	4 4	2 2	...	...
King's	6 6	...	9 9	6 6	...	9 9	7 7	...	9 9	4 4	...	6 6	5 5	...	7 7	5 5	...	7 7	4 4	...	6 6	3 3	...	4 4	3 3	...	4 4	4 4	8 8
St. Mary's	6 6	...	8 8	6 6	...	8 8	5 5	...	7 7	4 4	...	6 6	4 4	...	6 6	4 4	...	6 6	4 4	...	6 6	3 3	...	4 4	3 3	...	4 4	2 2	3 3
Queen's Coll., Birmingham..	7 7(c)	...	...	7 7(c)	...	...	4 4	...	...	5 5	...	...	5 5	...	...	5 5	...	...	4 4	...	...	4 4	...	...	4 4	...	...	3 3	...
Sydenham Coll., do.	4 4	...	7 7	4 4	...	9 9	4 4	...	7 7	4 4	...	7 7	4 4	...	7 7	4 4	...	7 7	3 3	...	4 4	3 3	...	4 4	3 3	...	4 4	2 2	...
Bristol Medical School ...	5 5	...	9 9	5 5	...	9 9	5 5	...	8 8	4 4	...	6 6	4 4	...	6 6	4 4	...	6 6	4 4	...	6 6	3 3	...	5 5	3 3	...	5 5	3 3	...
Hull and East Riding Sch. of Medicine	...	...	...	5 5	...	8 8	5 5	...	...	5 5	...	7 7	5 5	...	7 7	3 3	...	5 5	4 4	...	6 6	3 3	...	...	3 3	...	...	...	...
Leeds School of Medicine(d)	4 4	3 3	7 7	6 6	4 4	10 10	4 4	3 3	7 7	5 5	3 3	8 8	5 5	3 3	8 8	3 3	2 2	5 5	3 3	2 2	5 5	2 12 6	1 11 6	4 4	2 12 6	1 11 6	4 4	1 1	...
Liverpool Royal Infirmary School of Medicine ...	3 3	...	...	8 8	...	...	5 5	...	...	4 4	...	...	5 5	...	...	4 4	...	...	4 4	...	...	3 3	...	...	3 3	...	...	3 3	...
Manchester Royal School of Medicine and Surgery *...	...	...	...	4 4	...	...	4 4	...	...	4 4	...	...	4 4	...	...	4 4	...	...	4 4	...	...	...	...	...	3 3	...	...	3 3	...
Newcastle-on-Tyne College of Medicine, in connexion with University of Durham	3 3	...	...	4 4	...	...	4 4	...	...	3 3	...	...	3 3	...	...	3 3	...	...	3 3	...	...	3 3	...	...	3 3	...	...	...	...
Sheffield Medical Institution	...	...	...	4 4	...	...	6 6	...	...	4 4	...	...	4 4	...	...	3 3	...	...	3 3	...	...	3 3	...	...	3 3	...	...	...	...
York School of Medicine ...	...	...	...	6 6	...	10 10	5 5	...	7 7	5 5	...	7 7	5 5	...	8 8	3 3	...	5 5	3 3	...	5 5	2 12	...	4 4	2 12	...	4 4	...	...

* The Chatham-street School, Manchester, is now united with the Manchester Royal School; the Lectures, etc., will be delivered in the late Chatham-street School.

(a) Single Course of Anatomy, Physiology, Demonstrations, and Dissection, £8 8s.; Perpetual, £15 15s. (b) For General Pupils of the School, £2 2s. (c) £7 7s. for Surgical Anatomy, Descriptive Anatomy, and General Anatomy and Physiology. (d) Surgical Anatomy and Demonstrations, £3 3s. together.

PERPETUAL FEES FOR LECTURES, ETC., REQUIRED BY COLLEGE AND HALL,—

St. Bartholomew's, £91 10s. (Lectures and Hospital Practice)
St. Thomas's, £90 Ditto
Guy's, £90 Ditto
Westminster, £71 8s. Ditto
St. George's, £96 12s. Ditto
London, £88 4s. Ditto
Middlesex, £75 (exclusive of Prac. Chem.) Ditto
University, £90 Ditto
Charing Cross, £73 7s. (Lectures and Hospital Practice)
King's, £95 11s. Ditto
St. Mary's, £89 5s. Ditto
School adjoining St. George's, £73 10s. Ditto
Queen's College, Birmingham, £63 10s. Ditto
Sydenham College, Birmingham, £42 (Lectures only)
Bristol Medical School, £47 5s. (exclusive of Prac. Chem.) Ditto
Hull and East Riding School of Medicine, £42 Ditto Ditto
Leeds School of Medicine, £42 (exclusive of Prac. Chemy.) (Lectures only.)
Liverpool Royal Infirmary School of Medicine, £45 Ditto
Manchester Royal School of Medicine and Surgery, £42 Ditto
Newcastle-on-Tyne College of Medicine, £42 Ditto
Sheffield Medical Institution, £42 (exclusive of Practical Chemistry.) Ditto
York School of Medicine, £42

OPENING OF THE MEDICAL SESSION.

INTRODUCTORY LECTURES.

KING'S COLLEGE.

The lecture was addressed chiefly to the junior students. Dr. Johnson began by congratulating them on their choice of the profession of medicine, the peculiar trials and difficulties of which are more than counterbalanced by the advantages which its members may secure for themselves by high principle and honest industry. In all past ages and in the present, some of the most learned, and wisest, and best of men have been and are practitioners of medicine and surgery. "These men constitute the aristocracy of our profession, and in their ranks let it be your ambition to obtain a peerage."

The pupils were then exhorted to yield a ready and loyal obedience to the discipline of the College, to lose no time in making a good beginning of work, and to work steadily and honestly throughout the whole period of their academic career, avoiding the fatal delusion of supposing that to pass their examinations by the aid of a grinder is all that is required from students of medicine. Referring then to particular subjects of study, the lecturer insisted on the importance of a practical knowledge, especially of anatomy and chemistry, and above all of disease. The accuracy and precision of our means of diagnosis are continually increasing. This is especially the case with diseases of the lungs, and heart, and kidneys; and the student cannot remain ignorant of these subjects without seriously imperiling his success in life; neither can he learn them without persevering study in the wards of the Hospital. The difficulty and the uncertainty of the art of healing being notorious, it is of the highest importance that we should learn to reason accurately upon the phenomena of disease, and especially upon the influence of treatment; that we should clearly distinguish between fact and hypothesis; and that we should, as far as possible, keep our minds free and untrammelled, always open to conviction, and ready to receive light from every source. The Lecturer then spoke of the influence which, in all ages, Medical theories have exerted on Medical practice, an erroneous theory often leading to a mischievous plan of treatment. As an example of this, reference was made to the old method of treating small-pox by hot rooms and heaps of bed-clothes, with a view to favour the maturation of the pustules. A too-violent and indiscriminating application of the antiphlogistic treatment was also referred to as resulting from a disregard of the dictates of common sense, and a reliance upon an imperfect and in some respects erroneous pathology of inflammation. The practical lesson from these errors of the past is to be very cautious in receiving theories, especially such as are intended to influence our practice.

Allusion was then made to the "Marshall Hall's Ready Method" of treating asphyxia, as affording a good illustration of the application of physiological reasoning to practice. The importance and value of this new mode of treatment were insisted on, and its principle explained. Reference was made to some published cases successfully treated by this means, which would almost certainly have been lost under any other mode of treatment. Dr. Johnson paid a tribute to the memory of the late Dr. Marshall Hall, and concluded by exhorting his hearers to follow the example of that great Physiologist and Physician.

ST. BARTHOLOMEW'S HOSPITAL.

The Introductory Lecture was delivered by Dr. Kirkes.

After alluding to the great improvements lately effected in the Museum and other parts of the College under the superintendence of the Treasurer, Mr. Foster White, to whom he paid a high compliment, the Lecturer addressed his observations to the students of St. Bartholomew's, who formed the great bulk of his audience. He commenced by assuming that they were all assembled on that evening, the opening of the Session, with the earnest purpose of devoting themselves with diligence to the work before them. The science of Medicine and Surgery, which they had chosen as the object of their study, was well worthy to engage the highest intellectual abilities; for it was a science which, by Divine assistance, enabled man to mitigate and remove human suffering, to avert the withering hand of death, and to restore health to the sick and dying. It was a profession in which the greatest intellectual powers were brought into action, for the objects to be studied were, 1, The structure and functions of man, the masterpiece of God's works; 2, The relation of chemical and physical forces to the mysterious principle of vitality, which forms living, sentient beings out of the dust of the earth; and, 3, The nature and treatment of disease. The subjects were inexhaustible, there being scarcely a disease of which the true nature and essence were known, although, from the continual and rapid progress of science, it might be expected that much which was dark would soon be made clear. But moral as well as intellectual enjoyment was afforded by the science of Medicine, for, in the alleviation of suffering and cure of disease, there would be felt great inward satisfaction and happiness. The lecturer next offered some advice as to the best way of becoming accomplished members of this honourable profession; he pointed out the great facilities for study afforded by St. Bartholomew's Hospital, but at the same time urged upon his hearers the necessity of working for themselves—of cultivating the habit of industry and unwearied perseverance, since talents without sheer hard work would avail nothing; whereas industry, even in the absence of great talents, would accomplish nearly anything. Work should yield pleasure, and "Labor ipse voluptas" should be among the students' mottoes. He instanced the pleasure received by a sportsman in the pursuit of game, which made him regardless alike of weariness, or cold, or hunger, as being the kind of pleasure which results from the steady pursuit of one object; comparing it with the indefatigable labours of John Hunter in the pursuit of scientific truth, rising, with pleasure, at six in the morning, and working till midnight at his favourite pursuits, and taking delight in the exercise of his intellectual powers. The lecturer next advised the students to keep a watchful eye over the expenditure of their time, to gather up the fragments, the occasional spare ten minutes, and press them into the service of study. Relaxation, however, was necessary both for body and mind, to preserve them in vigour; he exhorted the students, therefore, to beware how they employed their leisure hours, to use them as restoratives, and not waste them in idleness or frivolity. The advantages presented by a London Hospital were great, yet the temptations to vice and idleness were even greater; he urged upon them, therefore, the remembrance of home affections as being, after their Christian obligations, among the most powerful motives to preserve them in a right course,—the father's anxiety for his son's reputation, the mother's fears, the sister's pride in his honourable success or grief at his loss of reputation. Respecting the three principal sources from which their knowledge was to be drawn, viz. lectures, reading, and observation, the lecturer urged upon his hearers the duty of giving an equal share of their attention to all,—not to make exclusive use of any to the neglect of the rest. Observation and reading, he said, should go hand in hand: the former shows things as they are, the latter only tells about them. He advised the students not to leave the lecture theatre in doubt on any point, and to cultivate the friendship of the Lecturer. He then addressed himself to the first-year's students, advising them not to depart from the curriculum laid down for them, and to make Anatomy, Physiology, and Chemistry their chief study in the coming winter, for these constituted the groundwork of all their after studies. Second and third years' students were urged to give their attention more to the wards, where they could study living specimens of disease; they were advised not to neglect the ordinary common-place forms of disease, in order to run after mere curiosities of disease, or rare accidents and operations, for in their future career it would be their treatment of the more ordinary kinds of disease which would determine their success. The students were also exhorted to let no levity mark their behaviour in the dissecting-room or wards, for the former was hallowed by the presence of the dead, and the latter equally so, by the presence of the sick and suffering, by the step of the mourner, the fatherless, and the orphan, and by the tread of great men that have passed away. Among the numerous obstacles to professional advancement, the lecturer alluded to the supposed hindrances of imperfect education and scanty means, pointing out that these, far from being bars to success, were frequently means towards obtain-

ng it, by stimulating to more powerful exertions. He instanced John Hunter, James Watt, and George Stephenson, as proofs that men whose early youth was beset with difficulties and where education was neglected yet have fought their way through all obstacles, and risen to the summit of the hill of fame, leaving many behind whose extraneous advantages had been greater.

In conclusion, he warned the students against supposing that study was to cease when the diploma was gained, assuring them that the habits of close study and observation acquired in the Hospital would be required in practice. Their Profession should be followed earnestly and faithfully, for theirs was a high responsibility; they were sent forth as "Priests of the holy flame of life," and although sometimes failure would attend their best efforts, they were not to be daunted, but to remember that the issues of life and death were in Higher Hands; that it only remained for them to do their duty faithfully in a Christian spirit.

ST. THOMAS'S HOSPITAL.

Dr. Brinton commenced by alluding to the latitude generally conceded in such addresses as to the choice of a subject, and the ease with which the science of Medicine might be made to furnish topics which would interest any audience, however mixed, as well as illustrate the magnitude and importance of the science that yielded them. He felt it a duty, however, to adopt a different procedure, and to make his remarks introductory not only in name, but in fact. Incidentally he might hope to interest all his audience, whose sympathy in the purpose of medical teaching was illustrated by their presence that night. But his first object was that of being useful to the new students, to whom it was of paramount importance to gain, at the very outset of their career, strong impressions, and accurate information, respecting it; if only as a basis for a fixed plan of action; and for such explanations this was the fittest, indeed the only opportunity.

He therefore addressed himself to the new students, with the intention of pointing out the chief peculiarities of their future studies.

First and foremost was the magnitude of the task they undertook. Four preparatory sciences—Anatomy, Physiology, Chemistry, Botany; two mechanical arts—Dissection, Practical Chemistry; a full and technical knowledge of Medicine in its subdivisions of Physic, Surgery, Midwifery, as well as its fragments, Materia Medica, Forensic Medicine—all these branches of knowledge they had to acquire in about twenty-seven months of actual study, in a period less than sufficient completely to train a soldier.

He then inquired into the appliances they brought to this task. Assuming their liberal education, still he could not also assume that they were already disciplined for study; or if so, probably the mere bookmen required just as much training in respect to observation, as did the less literate student in respect of reading. In short, with less general preparation than would generally have been accorded to a student preparing for the Church or the Bar, they had to begin a series of technical studies, far more extensive than any required by these or other professions in this or any period of the world's history.

He then appealed to the Medical section of his audience as to whether this risk was exaggerated, and drew a picture of a student, beginning with the best intentions, but bewildered into an undue cultivation of one or two studies on the one hand, or into general idleness on the other. He added, that although such a picture was, in its literal features, truer of the past than of the present, still the danger was not so much diminished as corrected; and hence that it was extremely important to warn the student that the subjects prescribed for him by the examining bodies were to be attended to, at first, to the exclusion of every specialty, every accomplishment, forced upon his notice; and that any reversal of this rule might endanger not only the student's future usefulness, but even his integrity and self-respect.

Dissection, however repulsive at first sight, required little enforcement. The common sense analogy between the practitioner of medicine and the artisan who has to mend a machine—each necessarily requiring some knowledge of the structures with which they interfered—was indeed less than the truth; anatomy being the general as well as specific knowledge, and the implement as well as the information necessary. On the other hand, its advantages to medicine were contrasted with the disadvantages felt in other professions, the active efforts of which were based on analogous information less easily procurable,—as, for instance, in sculpture or painting, and in military science. The object of dissection was threefold:—as to Physic, it taught the situation and land-marks of the internal organs; as to Surgery, it taught the structures concerned in the science, and the operative skill necessary to the art. It was therefore the earliest and chief object of the student's care, and the fulcrum of all his subsequent efforts.

Lectures, again, required some explanation, not only from their large claims on the student's time, but from their influence on his education, and the misunderstandings sometimes promulgated respecting them.

Rehearsing these disparaging opinions, Dr. Brinton remarked that they contained some elements of truth, which, however, he should not separate in detail. It was enough to indicate these errors, where such were likely to mislead the student.

As regarded the superiority of the pupils studying by reading, rather than by attending lectures, it was pointed out, that whatever might be the gain of an imaginary model student from such a process, it was by the effect of lectures on students generally that their usefulness must be tested; and that (as the increasing popularity of lectures upon even such subjects as light literature abundantly showed) they appealed to larger numbers, and influenced these more completely than books; that they gained access to the mind by a readier and more natural channel, and that their effects were heightened by the circumstances of their delivery; that they were valuable as a counterpoise to bookish habits, such as would invariably warp and check that healthy concord of all faculties so essential to the study of Medicine; that they taught a Medical student what was most necessary in after-life—how to receive, and analyse, and reconstruct, a continuous oral narrative—that they guided the student, who would otherwise be very likely to select unfit books from a teeming professional press; that they methodized his study, and arranged it to a suitable rate of progress; and lastly, that, if properly conducted, they shared some of the chief advantages of the tutorial system, in permitting illustration, demonstration, and repetition, according to the needs of the existing class.

Assuming these statements, it followed that the full value of lectures was only to be reaped by careful and co-ordinate exertion on the student's part. He must consider himself his own tutor, as regarded lectures; and, as one part of his duties in this capacity, he was earnestly counselled to take thorough and complete notes; not only to gain a sort of skeleton treatise on the particular subject, and to guide and select his reading, but especially to cultivate accuracy, and to form habits of analysis and reflection.

After a few further details on note-taking, the lecturer passed on to consider the subject of reading, in which he recommended caution and moderation as the rule for the majority of students. To an enumeration of some rules which applied to every reader, he added some specific to the student, whose duty in respect to books he defined as being not merely different, but opposite, complementary, and preparatory, to that of the active Practitioner of Medicine. He inculcated the intense study, the mastering, of a single good book in each subject, and pointed out the process by which this was to be effected. He then showed that it was only by such thorough study that the student acquired the facility so indispensable to him in his future life, where it would be his duty rather to skim, and cull, and select from, a variety of books and journals, than to read or study any of them professedly.

The absolute amount of reading, however, the Lecturer regarded as to be determined by each student's idiosyncrasy. At the same time he specified some details, with reference to three varieties of students,—the slow or plodding, the quick or clever (to whom a word of warning was given), and lastly, the advanced Medical student (to whom he suggested to avail himself of any momentary interest or curiosity, and read with reference to actual cases or circumstances of this kind—"casual," as distinguished from "systematic" reading.

In alluding to Clinical Medicine, the Lecturer confessed its imperfections, as at present taught in London, claiming only for St. Thomas's a full equality in this point with other institutions. Indeed, after glancing at his own subordinate duties in the school, and at his complete want of all opportunity of

assisting in the instruction given in the Hospital, he went on to say that this casual (and, he feared, but temporary) connexion with the Institution entitled him to rank as a comparatively unbiassed judge of its merits. After asserting these in general terms, he pointed out some details characterizing St. Thomas's Hospital :—The complete courses given on Clinical Medicine, Pathology, the Microscope; the appointment of a tutor; the discouragement of the undue study of single subjects, by the abolition of the ordinary prizes; and, lastly, the valuable rewards given to the new student for preliminary knowledge of Classics, &c.; to the students of the various years for proficiency in their corresponding subjects, and to the student on ending his career. The latter were especially dwelt on, as combining with a considerable stipend (we understand not less than £80 a year) Hospital duties still more valuable.

In conclusion, the Lecturer alluded to the peculiar situation of the Medical student in the Metropolis, and to his comparative freedom from control,—an evil which he thought was allayed by some good, and especially by the humanizing bent of Medical study, and by the relations of the teacher and the taught. Pointing out especially the practical duties they shared in the Hospital, he appealed to them by this fact, as the "motif" of the sentiments which ought to exist between them—to look upon their teachers as friends and fellow-workers in the task of their own education. This task (he ended by saying) was one in which the teachers did but fulfil their duty to the great men whose practical skill had bequeathed them their own knowledge; and he begged the students to remember, that they would hereafter be in some sense the representatives of those who had aided in their education, as well as the largest and noblest instruments by which the latter could hope to benefit the public.

ST. GEORGE'S HOSPITAL.

Dr. Fuller began his address by recalling to the senior part of his audience the difficulties and temptations they had had to encounter at the outset of their Professional career, and made this a ground for addressing the remainder of his remarks to those who are now about to commence their studies in London. He first pointed out the nature of their adopted calling, and the motives with which it ought to be pursued. "If," he said, "it be true that a Profession, which has for its object the saving of human life, and the prevention of human suffering; which calls forth the noblest qualities of the mind, enlarges its sympathies, and tends to clear it of prejudice or error; which brings us in direct and intimate relation with our suffering fellow-creatures, and by giving us an insight into human nature under every form and every aspect, enables us to learn wisdom from the dearly bought experience of others, —if such a Profession be worthy of your desire, you may be truly thankful for the selection you have made. A life of honourable usefulness lies before you, such as does not fall to the lot of every one. The Profession of Medicine, if worthily pursued, is a noble and beneficent vocation, softening and humanising those who follow it, leading them to regard with leniency the weaknesses of their fellow-creatures, and prompting them to spare no effort to relieve their mental anguish or assuage their bodily suffering." He urged them to take a high view of their profession, and to follow it steadily and consistently, in the hope, that, whilst it may one day yield them an honourable subsistence, it may also enable them to cultivate those qualities which serve to distinguish a Christian gentleman. He then proceeded to offer them advice respecting the choice of friends and companions, and warned them, not only against the idle and the dissolute, but against the good-natured, well-meaning, but thoughtless, whose inexperience leads them to imagine that there can be no harm in a little temporary self-indulgence, a little time devoted to the so-called pleasures of a London life. "Nothing," he said, "can be more fatal to your success and happiness. Thousands have trodden this dangerous road, and their example has shown that he whose course is marked at the outset by negligence or irregularity is gradually led on to utter idleness and into evil company, and finds himself, at the close of his Hospital career, without the knowledge requisite for the proper exercise of his Profession, and without a character calculated to assist him in any effort he may then be induced to make to redeem his mis-spent hours." He urged them to begin as they intended to go on, to be regular and constant in attendance at lectures, diligent in the dissecting-room, earnest in their private studies, zealous in the pursuit of that practical knowledge which is only to be acquired in the wards of the Hospital. "The study you have embraced," he said, "is one to engross your whole attention, even if it had no relation to your future career through life. But forming, as it does, the groundwork of that Profession which you have deliberately chosen, you are bound to devote your whole energies to its prosecution. You are bound to do so for the sake of your own reputation and future happiness, for the sake of those friends who have given you your education, and who are still assisting you, and for the sake of those poor suffering fellow-creatures who will one day look to you for relief; above all, you are bound to do so as the servants of an All-wise Providence, who has been pleased to enrol you among the number of those whom He employs as the channels of His mercy and the ministers of His earthly blessings, and who one day will require at your hands an account of the talents committed to your charge." He then proceeded to point out the necessity for learning to regulate the feelings and behaviour, to discipline the mind, and to follow strictly in the path of moral rectitude. "You must learn," he said, "to cultivate habits of order, method, and punctuality, so as to be able to economise your time; you must acquire the habit of directing your whole attention to the subject before you, so as to analyse and reason on it correctly; you must learn to be exact in observation, and scrupulously accurate in your record of facts, to discriminate between the important and the unimportant, and so to arrange and classify your knowledge as to have it always available in practice. But beyond all this, if you would succeed in your career and occupy an honourable position in the world, you must learn to cherish self-respect and honesty of purpose—feelings inconsistent with mean or dishonourable actions; you must evince integrity of conduct, generosity of character, and kindliness of feeling towards your Professional brethren; you must acquire a habit of self-restraint which shall enable you to bear with the waywardness of your patients, and a gentleness of manner and cheerfulness of disposition which shall render you a welcome visitor to them; you must learn to sympathise with them in their afflictions, to counsel them in their distress, and in every way so to regulate your feelings as to make yourselves their friends, as well as their advisers." "There is no walk of life," he continued, "in which persevering industry and good moral conduct meet with a surer or more lasting reward, or in which a life of idleness and misconduct more certainly leads to misery and ruin."

Alluding to the differences in talent and attainments which would be manifest among them, Dr. Fuller urged the less highly gifted not to be down-hearted, but rather to strive the more earnestly after knowledge. He told them that the mental powers admit of development to a degree of which perhaps they had little conception, and that they will soon discover that moderate ability, backed by well-directed discipline and steady industry, will enable any one of them to compete with the most talented of his neighbours. "Many," he said, "have gone before you who, with little talent, and against every disadvantage, have won their way to affluence and respect; and he who devotes himself in earnest to his work, and with an honest, upright heart walks manfully along the path he has chosen, will seldom, if ever, fail in obtaining a reasonable amount of professional success."

Dr. Fuller then discussed the difficulties they would have to encounter, and assured them that they would meet with none which may not be readily overcome. "Believe me," he said, "the path which you are about to tread is not beset by any obstacles which may not be overcome by steady industry and application. It has its own, its special difficulties, but so has every walk through life; and he who would be useful, happy, and contented, must meet them in a proper spirit, and make the exertion which is necessary to overcome them." After referring to the multiplicity of new and isolated facts which will be brought before them in their different lectures, and to the difficulty they will experience in arranging and classifying them, Dr. Fuller urged them to take every opportunity of verifying these facts for themselves, by observations in the dissecting-rooms and in the wards of the Hospitals. "The most valuable knowledge we possess," he said, "is that which we have acquired for ourselves by long-continued observation and experience. It cannot, to any great extent, be communicated to others either orally or by writing; and there-

fore the utmost that can be said of books and lectures is, that they are faithful outlines, simplified and adapted for your instruction, and intended to be filled up by your personal observation. Go, then, to the source whence you may obtain the knowledge necessary to enable you to fill them up. Go to the bed-side with a note-book in your hand, preserve a record of the cases which come before you; illustrate these, if you are able, by sketches and drawings; and in the evening arrange them methodically, study their details, compare them with one another, and discuss them with your fellow-students. Whilst so doing, you will find that many things occur to you which had previously escaped your notice; you will be led to view symptoms in a different light, or to trace some unobserved connexion between them; and if you steadily follow out this system of note-taking, you will be surprised when you leave this scene of great labours to find how large a store of facts you will have accumulated,—facts, moreover, of a practical nature, which will serve as references in after years, and prove most valuable guides to you through life."

Dr. Fuller then proceeded to offer a few suggestions relative to their conduct and personal demeanour, and begged them to let it be quiet, thoughtful, and becoming in the dissecting-room; kind and considerate in the wards of the Hospital. He advised them to select some rational and elevating pursuit as a recreation in their leisure hours, and warned them that if they fail to do so, they will not only lose much valuable time, but fall into idle, careless, habits, and surely expose themselves to the inroads of vice. He urged them, however, to keep such pursuit subservient to the main object they have in view, telling them that the time they have for study is so short that they must turn neither to the right nor to the left, but walk steadily along the path they have chosen. He impressed upon them the necessity for remembering the advice he had given them when hereafter engaged in the practice of their profession, and for not allowing themselves to be led astray by the cares and anxieties of life.

Dr. Fuller concluded by an appeal to a crowded audience, who repeatedly expressed their gratification, urging them to follow the examples of the Great and Good. "Let me beg of you," he said, "to be zealous in your studies; tread in the footsteps of those great men whose names adorn the bead-roll of our profession, and emulate their virtues, their industry, and attainments. If you cannot rival their glorious achievements, at least let it be obvious that you are doing your very best; that you are conscious of your privileges and mindful of your responsibilities. There is much here around you to cheer you on. The very ground you tread is hallowed by the memory of men who have earned a glorious, undying reputation. It was here, at St. George's Hospital, that Jenner studied; it was here that Cheselden operated for stone; here too, the indefatigable Baillie worked, and Hunter won his way to fame. Nor are these the only men whose names deserve to be chronicled for your encouragement. Heberden, Young and Wollaston, Pemberton, Hope, Chambers and Mansfield Clarke. These, and a host of others who now are numbered with the illustrious dead passed their early days within these walls, and many of them were medical officers of the Hospital. Even now there remains among us one who has earned a deservedly world-wide reputation, a man to whom we are largely indebted, and to whom we would all do honour. Yes, gentlemen, with Brodie for a living exemplar, and with the memory of those great and good men who have preceded him, to stimulate you in the pursuit of knowledge, you have no excuse for apathy or indolence. Go forward, then, manfully in the path which they have trodden; follow their footsteps honestly, earnestly, hopefully; strive to the utmost to become skilful practitioners, and to do justice to your patients, whether rich or poor; but, above all, be true to yourselves, and let it be your chief endeavour to deserve the good opinion of mankind as men of feeling, integrity, and honour. So, towards the close of your earthly career, you will be able to look back with honest pride upon the course you have been permitted to run, and will feel gratified by the reflection that, as far as in you lay, you have been useful in your generation, and have done your duty to God and man.

WESTMINSTER HOSPITAL.

The Introductory Lecture was delivered by Dr. Radcliffe:—"When," says Archbishop Whately, "complaints are made, often not altogether without reason, of the prevailing ignorance of facts on such and such subjects, it will often be found that the parties censured, though possessing less knowledge than is desirable, yet possess more than they know what to do with. Their deficiency in arranging and applying their knowledge, in combining facts, and correctly deducing and rightly employing general principles, will be, perhaps, greater than their ignorance of facts. Now to attempt remedying this defect by imparting to them additional knowledge, to confer the advantage of wider experience on those who have not skill in profiting by experience—is to attempt enlarging the prospect of a short-sighted man by bringing him to the top of a hill, since he could not on the plains see distinctly the objects before him; the wider horizon from the hill-top is utterly lost upon him."

Everything, indeed, would seem to have changed since the days of Bacon. Up to that time the prevailing fault among philosophers was, hasty, careless, and scanty observation, and the want of copious and patient experiment. On supposed facts not carefully ascertained, and often on baseless conjecture, men proceeded to reason, often very closely and ingeniously, forgetting that no architectural skill in a superstructure will give firmness to a building if the foundation on which it rests be insecure. In other words, they reasoned on fancies instead of facts. Since the days of Bacon there has been an ever-increasing tendency—never greater than at the present day—to disparage the reasoning process, and to substitute in place of this process "the mere accumulated knowledge of a multitude of facts," and trust to what is often called *experience*, meaning by that an extensive, but crude and undigested observation.

Now I do not wish to be misunderstood in applying these general remarks to the present state of the Medical sciences, for no one can be prouder of the triumphs of medicine, or more sensitive to the just honour of a Profession which is only second to one in honour; but I appeal to the consciousness of all around me, and ask whether their present difficulties are not rather in arranging and supplying their knowledge, in combining facts and correctly deducing and rightly employing general principles, than in any ignorance of facts. I appeal to the consciousness of all around me, and ask whether the multitude of facts which are now crowded into the different subjects with which the students of Medicine have specially to do—anatomy, human and comparative, physiology, zoology, botany, chemistry, materia medica, surgery, medicine, etc. is not more than they know what to do with; and whether, in mastering these facts (if any one may hope to master them), there is not much danger of being bewildered, or, at best, of leaving little or no time for the deduction and right employment of general principles. Is it not so? That it is so, I, for my own part, have no manner of doubt, and I am equally confident that this conviction is not at all peculiar to myself.

What, then, is to be done? Is it possible to deduce any general principle—any general principle which will be of practical use from this multitude of facts? I think it is. At any rate, I think there need be no difficulty in pointing out the path which must be pursued in searching after such a principle, and I therefore propose to occupy the few moments allotted to me in endeavouring to point out this path.

After these introductory remarks, Dr. Radcliffe proceeds to glance at the well known arguments which show that there is a connexion between heat, light, electricity, magnetism, chemical power, and some kinds of motion, which is only to be understood upon the supposition that these phenomena are signs of *one and the same action*, and not distinct and independent agents. He then enters more deeply into this part of the subject, and refers to the arguments of an anonymous author, in a work recently published under the name of "Nomos," by which this connexion between electricity and the kindred agents, or so-called agents, is traced with great clearness to a common law, a law which is shown to comprehend not only some, but all kinds of motion, celestial as well as terrestrial.

In the next place, Dr. Radcliffe dwells at some length on the connexion existing between vital and physical phenomena, and cites many arguments which serve to show that this connexion is not to be understood except upon the assumption that there is some ground, some fundamental principle or law, to which all phenomena, vital and physical, are alike obedient.

The lecturer then proceeds to deduce certain practical consequences from this doctrine of unity of principle or law. If

there be such a principle, he says, it is no question of theory, it is one of practice; and this conclusion must become self-evident, just in proportion to the degree in which medicine is raised to the rank of the exact sciences. If there be this unity of prineiple in law, it is evident that all natural phenomena must be interpreted by it, if they are to be interpreted at all. As well might we attempt to understand the falling of a stone towards the earth, or of the earth towards the sun, without the law of gravitation, as attempt to unravel any mystery of life without this principle. Then turning to the subject of disease, and adducing cholera and consumption as special illustrations, he argues that disease is a *natural* consequence of the violation of law or principle, and not something *unnatural*,—something *in order*, and not something *out of order*,—even something as purely physiological, when properly understood, as health itself.

After these considerations, Dr. Radcliffe reverts to the subject of law and principle, and maintains that the grandest generalisation of all—that which explains the mystery of life—will not be established simply and solely by an appeal to nature. If we appeal to nature, and ask what is life and conscience, and will and intelligence, with its wondrous powers of memory and anticipation, what is the answer? The oracle is as dumb as that of ancient Delphi; for it boots nothing to be told to ransack the convolutions of the brain; and it avails as little to pore over the pages of the metaphysician; and yet the Physician must set himself to learn all he can respecting them, or he will not have much chance of relieving the most important maladies to which the human frame is subject.

But these faculties are not altogether unintelligible; they are unintelligible, if information respecting them be sought solely in the oracle of nature; but they are not unintelligible if information be sought first at an oracle which is higher than that of nature. I cannot now propose to demonstrate the proposition, that the higher oracle, even that of revelation, must be consulted before he can hope to comprehend the sublime utterances of the oracle of nature; but I may hint at the mode in which, after consulting the higher oracle, some light begins to dawn upon the mystery of life. What, then, is that nature in which these high faculties of life, and conscience, and will, and intelligence are lodged? The oracle of nature is dumb; the oracle higher than that of nature answers simply and unequivocally, that man was created in the image of Him who is revealed to us (and science bows to the revelation) as eternal, infinitely holy, all-powerful, all-wise, even God himself. There is no obscurity, and the answer cannot be misunderstood, except from sheer wilfulness or inattention. And if this is the answer, is it a wonder that man, whose nature is thus godlike, should be endowed with life, and conscience, and will, and intelligence? Assuredly not. The wonder is, not that man should live, but that he should be shorn of the life of Him who is from everlasting to everlasting. The wonder is, not that man should be endowed with a conscience, but that that record which tells of the holiness of man's august original should be so steeped in evil. The wonder is, not that man should have a will, but that the image of the Omnipotent God should be so impotent and helpless. The wonder is, not that man should know a little, and remember a little, and anticipate a little, but that he should retain so little of the intelligence of Him to whom past, present, and future are at once open. The wonder is, that man is so "lapsed in time and passion;"—but why talk of wonder? for if we listen to the same oracle, which tells us that man was created in the image of God, we shall soon learn that man has fallen from his high estate.

Now, I believe, and believe unhesitatingly, that it is in this way only that we can hope to comprehend the higher mysteries of the life of man; and I believe, moreover, that without this key it will be impossible to comprehend any vital phenomena whatever. Man is not altogether severed from the lower forms of life. On the contrary, there is a common type, a common law, which binds him to them in an indissoluble alliance; and hence, it may be expected that the image of man will be reflected upon them, as the divine image is reflected upon him. And, if so, then it is no wonder that there should be manifold evidences of life and intelligence around and beneath man, and that these evidences should be perfect in their degree, because the lower forms of creation are not revealed to us as having partaken in the fall of man, or, at any rate, they are not revealed to us as having fallen in the same manner; and, if the lower forms of creation have not fallen as man has fallen, it is to be expected that the several vital phenomena which belong to these forms should be perfectly adapted to the condition in which these forms are placed, and that any intellectual phenomena should partake of the character of instinctive acts. Indeed, every vital phenomenon, high or low, must take place with perfect regularity under the same circumstances, because there is no perverted will to mask the manifestations of that perfect law, of which the vital phenomena are the signs.

I believe indeed, and I believe unhesitatingly, not only that there is no discrepancy between the teachings of Holy Writ and the teachings of nature, but I believe also that the mystery of nature will remain a mystery until philosophers will consent to listen to the teachings of Holy Writ. It is not enough to seek after a common law in the way in which it may be sought after in nature alone; but it is necessary, even as a scientific question, to pursue the subject beyond, far beyond; and to do this with a view to know the lawgiver as well as to comprehend the law. "A little philosophy," says Bacon, "inclineth man's mind to atheism, but depth in philosophy bringeth man's mind about to religion." It is not possible, indeed, to ignore religion in scientific inquiry, and to attempt to do so is to forego the possibility of attaining to the highest generalization—a generalization which gathers into one prineiple all phenomena, vital and physical, and which connects that principle with a superintending Deity, in whom we live, and move, and have our being.

> "A pagan kissing, for a step of Pan,
> The wild goat's hoof-print on the loamy down
> Exceeds our modern thinker, who turns back
> The strata—granite, limestone, coal, or clay,
> Concluding coldly with—Here's law! where's God?"

So says the accomplished author of "Aurora Leigh" of the modern thinker in geology; but if this be true of him—and who can doubt it?—how much more of the modern thinker in medicine!

GROSVENOR-PLACE SCHOOL OF MEDICINE.

The Introductory Lecture was delivered by Dr. Richardson. After a few brief sentences in reference to the prosperity of the school, and to the fact that the Faculty of Lecturers had replaced the school on a permanent basis, the speaker passed to the subject proper of his discourse—*The Medical Pilgrim's Progress*.

There were two ways to the attainment of name and worldly position in medicine; the one the broad, easy, and inviting way—the other narrow, difficult, and uninviting, but the only true. In the broad and easy way there were the most travellers. "Here were the men with means, who could fête their fellows, and trust to their Governors in emergencies; who could bide their time until the golden apple was thrust into their hands. These, the petted children of the broad highway, were not to be envied. They were, as a general rule, foppish, supercilious, and ignorant. They formed a class which might be called the "Young Lady Class in Physic." In this path, too, were found the men who tried after progress by paying false deference to their fellows and superiors. These were the toadies in physic. Again, there were in this road the dissolute and idle men, who took things as they came, and let them go as they go; who, deriding a progress they could not follow, drawled out their existences, or died, as though they had not been born, and earned for themselves the title of the "Old Women Class in Physic." In the narrow and difficult path, again, there were but few wayfarers, but the road was rendered sacred by the footprints of those who had traversed it—the road of Hippocrates, Harvey, Vesalius, the Hunters. Here must every one walk who would follow the Medical pilgrim's progress to its ultimate greatness. Did any one feel that in the path thus marked out the labour was too great, that genius was needed, and Herculean force? Let such an one have no fear, but go on. It is true, there is a great deal said about genius, as though genius were something *sui generis*—a kind of mental malformation, dependent on a knuckle of brain stuff, stowed away privately in particular noddles. There is nothing of the kind; but there is in some men a happy combination of mental faculties, which gives to such men a superiority over their fellows. These faculties, which all may cultivate, are three in number—Force, Fearlessness,

and Fact; they are inherent in man, and he who cultivates them persistently will be the representatives of genius beyond expectation. But genius is not developed by thinking about it; it knows not its own existence. For the Medical pilgrimage physical as well as mental training is required. Simplicity of life and manner are indispensables; imbecility is the first-born of luxury. Talk of the blessings of riches! why, what position do riches hold in their influence on the world when compared with their opposite? On the contrary, in science there has been scarcely one intellectual triumph that has not arisen out of the so-called poverty of this little earth." Having illustrated by some very appropriate sketches, from the lives of Franklin and Morgagni, how much may be achieved when the body is kept in concord with the mind, the Lecturer urged on the students the great importance of attending to the physical training of the body. "The profession of Medicine, lending itself too readily to the old-wife's stereotype of a 'real doctor,' makes a grand and universal mistake on this point. A doctor may pipe a sentimental song in an elegant carbonic acid depôt, called a drawing-room. He may play a rubber at whist with a whining old maid. He may do a mild dance if he does not polka. He may take wine after dinner till his head swims. But Heaven protect him if he venture to take part in any active pleasure which shall call into exercise his elegant, half useless, mute-at-a-funeral-clad limbs!" Without encouraging them to any injurious pursuit, he (Dr. Richardson) called on the future representatives of Medicine to disobey the old woman oracle. Innocent, active pleasures are the salt of life, and it behoved the Profession, as the teachers of the health laws, to develope this fact by example as well as precept; and to show the truth, that the more vigorous the body of the educated man the more vigorous would be his mind. Indeed, much of the namby-pambyism, vapidity, and anæmic conceit which too much characterizes all the learned professions, is due to the slow process of effemination and unmanning of the soul, incident to neglecting the physics of the body.

After a few words in favour of the study of practical mechanics, the Lecturer proceeded to the mental requirements of the Medical Pilgrim. The sciences change, therefore should the student bind himself to no dogma or scientific belief, save what he can read for himself, and understand from nature. Stepping back into history, the speaker drew out a forcible sketch of the condition of the physical sciences a few centuries ago, and contrasted this in striking terms with the condition of the same sciences now. In these days medicine is passing through a rapid but silent revolution, and the student must be prepared to move with the advanced guard, and to take nature only for his guide. There could be no excuse that the natural knowledge was not attainable; for never before were there such facilities for natural studies in physic. The plan of learning science by the inductive method was next entered on, and attention was then drawn to those special studies which would best qualify the future practitioner for his work. The sciences of Physiology, Pathology, Epidemiology, and Hygiene being specially introduced, it was indicated that the method of studying disease as something originating exclusively in the body, and as exclusively connected with the body, was becoming a mere remnant of antiquity. The external origin of almost every disease was now being recognised; and diseases were not being cured in detail, but exterminated altogether. It is true this new phase in medicine is in its infancy; but the more reason why those who were in their infancy in Medical concerns should take this new principle by the hand, and encourage its progress.

The lecture, of which the above is a very imperfect abstract, was delivered with great force and animation, amid the repeated applause of a large audience; and the lecturer concluded somewhat as follows:—

"As true Medical pilgrims, then, of this day, move on in your way, working from nature,—working by experiment,—working by induction,—working by the study of phenomena, and hunting down of phenomena to their efficient causes. Work less for the present hour than the ensuing,—work as for a future life even in this world,—so that students of next age, filling for the first time the student's chair, may link their existences with yours."

This is, probably, one of several of the Introductory Lectures delivered this year which will be published in a separate form at the request of those present.

ST. MARY'S HOSPITAL.

The Introductory Lecture was delivered by Mr. Lane, who enlarged upon some of the results of his experience, extending over a quarter of a century, on the subject of the education and conduct of the Medical student during his three years' attendance, saying a few words on these several branches of Medical education, the relative importance of each, and the necessity and advantage of letting the study of some of them precede that of others. Mr. Lane then explained how these studies should be carried on; he said: "My answer at once is, by the application of your own senses to the objects of your study, by making use of your own reasoning powers, working and thinking for yourselves. You must not be content to see, hear, and feel through the senses of another, or to let others think and meditate for you; you must educate your eye, ear, and hand, all your senses, that you may improve them as instruments by which you are to obtain knowledge; you must use and exert your mental faculties, that you may by practice develope and increase their powers. Your memory, your powers of attention, observation, and reflection will greatly improve by exercise, and will as certainly deteriorate by disuse. I have been struck by instances of this in former days, among my own house pupils. Two youths, I remember well, commencing their Medical studies together, under my own eye; the one much superior in natural abilities, but idle, at first showed to great advantage by comparison with the other, who was not blessed with the same natural talents, but was industrious, earnest, and persevering in his studies. At the end of three years, not only were the attainments of the latter superior, but his mental powers had so improved that you could scarcely believe that they had ever been inferior to those of his more talented but idle companion. The faculties of the one had improved by exercise, while those of the other had deteriorated by disuse; hence, in the short space of three years, the remarkable, almost incredible, changes in the status and promise of the two youths. So it will be with those whom I now address. The industrious, persevering, and earnest student will surpass his more gifted companion who fails to work. He will not surpass him in knowledge only, but even at last absolutely in mental ability. And here, for encouragement, I may observe that the possessor of the most moderate abilities need have no misgiving of his ultimate success, if determined, by the methodical application and cultivation of his talents, to make the best use of those entrusted to him. Numerous as the subjects are that he will have to study, I can assure him, from a long experience, that more is not required of him by the Examining Boards than he will, by perseverance, be enabled readily to attain within the specified period of three years. What others have done he will be able to accomplish; but then he must not be idle. A very common error for a student to fall into is to trust too much to his teacher for his knowledge, and to depend too little upon himself. He forgets that his teacher cannot learn for him. It is he himself that must understand, must commit to memory, must reflect, and in after life must apply his knowledge; no one can do this for him. He should always bear in mind that all his teacher can do is to show him the way to learn, and thus to facilitate his progress. It is quite right to attend lectures, to read, to be present in the dissecting room, the laboratory, the Hospital wards, the dead-house; all this is absolutely necessary, but these, after all, only supply the means, the opportunities. The senses and the mind of the student must be active, if knowledge is to be obtained from them; without exertion the means are lost, the opportunities thrown away. What I wish to impress upon you is, that a mere listener, reader, or passive observer, will never make the knowledge he seeks usefully and practically his own." Mr. Lane then made some remarks upon the errors students were liable to fall into, and especially upon the grinding system. "This system," he said, "consists of cramming the memory with the greatest possible number of facts, or rather answers to questions, in the least possible space of time, none of which can be examined by the mind and senses of the individual crammed, and of which in a few months he recollects nothing. It is a contrivance by which the idle student is enabled, after wasting all but the last three months of his term of study, to scramble through his examination, and thus obtain a licence to practise. Having accomplished this disgraceful feat, the next best step he can take for the public welfare and for his

own peace of mind is to quit our noble Profession, for which he has proved himself unfitted and unworthy, and the character of which he is only calculated to lower and degrade. These remarks are not intended to apply to the tutorial plan of teaching, or to any continuous assistance, whether termed grinding or not, where time is permitted to the student to exercise not only his memory, but the other faculties of his mind upon the object of his study; but they are intended to apply to that parrot-like cramming of the memory, that senseless working against time, that forcing into three months what can only be properly and profitably learned by assiduous labour in three years. One instance of success, one diploma obtained by the idle and ignorant student through the means of three months' grinding, does incalculable mischief to a class of students, confirming the idle, discouraging the industrious. But it must be confessed that the student is not alone responsible, or to blame, for the existence of this calamitous obstacle to his well-doing—this pernicious impediment to sound Medical education." The grinding system is also fostered by the supposition in the mind of the student, suggested by those who profit by it, that the kind of knowledge required from him, the answers to catch questions, and to questions peculiar to certain examiners, can only be learned from the grinder; and that even a thorough knowledge of the subject on which he is examined, as obtained from his legitimate teachers and from books, and worked out by himself, will not suffice. This is a delusion, which, however, sends many well-informed students to the grinder, who would feel degraded by resorting to him for the mere purpose of being crammed. These are the respectable clients of the grinders, whose example is followed: they are numerous; but would at once disappear from his ranks could the examinations at the Hall and College be thrown open, under proper regulations, to an audience of some twenty or thirty students preparing to undergo the same ordeal. What I advocate, then, and have advocated for the last twenty years, as an antidote to the baneful influence of the grinding system, are sessional examinations in addition to the present final examination, and that these examinations should be thrown open to the students who are qualifying for them."

Mr. Lane concluded by some general advice to the students as to diligence and good conduct, amid general applause.

UNIVERSITY COLLEGE.

There was no special Introductory Lecture at this School, all the Lecturers delivering their addresses in succession according to the hours appointed. Mr. Ellis commenced the lectures on Anatomy at nine, Dr. Sharpey, on Physiology, at ten, and Dr. Williamson, on Chemistry, at eleven. Dr. Grant lectured at three in the afternoon, and was followed by Mr. Erichsen, on Surgery, at four, and Dr. Walshe, on Medicine, at five. We are happy to see that the various classes were well attended, although the omission of the usual inaugural address was a subject of considerable disappointment.

GUY'S HOSPITAL.

The introductory lecture at this school was delivered by Dr. G. O. Rees, before a crowded assembly, including the Physicians, and Surgeons, and Lecturers, and many of the old and new students of the Hospital. Dr. Rees exhorted his hearers to diligence in the practical pursuit of their profession, and deprecated the prize system, as being calculated to concentrate the attention upon one or two subjects, and to distract it from the more immediate study of the aspects of disease, and the immediate details of medicine and surgery. He also thought that too many subjects were required by the Examining Boards to be learnt by the student within three years' curriculum; and that the technicalities necessary to be required were in many cases useless or superfluous.

MIDDLESEX HOSPITAL, THE LONDON HOSPITAL, CHARING CROSS HOSPITAL.

We are obliged to defer our notice of the Introductory Lectures at these Schools until next week.

ORIGINAL COMMUNICATIONS.

WHAT IS THE NATURAL POSITION OF A WOMAN DURING LABOUR?

By EDWARD RIGBY, M.D.

This question was suggested to me by the perusal of an interesting paper by Dr. Schütz, in the Transactions of the Berlin Obstetric Society (Verhandlungen der Gesellschaft für Geburtshülfe in Berlin), No. 4, p. 37, on the subject of concealed or secret parturition.

Dr. Schütz points out a fact which, considering the circumstances under which parturition in secret must usually occur, is perhaps, after all, not so singular as on first sight it might appear to be. From the result of extensive observations, particularly in a special work upon this subject by Dr. Cohen van Baren in Posen, it appears that a considerable number of those unmarried females who are delivered in secret go through the process of labour in an unusual position.

Of 100 cases of concealed parturition, which Dr. Cohen has collected, and of which depositions have been taken, fifty occurred with the patient in an unusual position. Thus we may assume, in cases where a woman is alone, and ignorant of the process of labour, that in half of them she will give birth to her child in a position different to that which is ordinarily used by women who have assistance rendered them at this time. Of the fifty cases just alluded to, in thirty the child was born with the patient in a standing posture; eighteen were delivered in a crouching, squatting, or sitting position, and two kneeling.

In fifty other cases which have been collected at Berlin, the position of the patient at the moment of delivery was ascertained only in forty-five, but of these thirty-two were delivered in an unusual position — viz., fourteen standing, sixteen crouching, squatting, or sitting, and two kneeling.

Although we have no means in England of procuring such data as our more accurate and methodical neighbours in Prussia have, yet I think that the experience of those medical men who have had extensive opportunities of observation will fully bear out these facts.

The question, then, which naturally suggests itself is—If a young woman be entirely unattended and uninterfered with during her labour, and therefore left completely to the guidance of her own instincts, what is the position she will assume at the moment of childbirth?

The chief data which we possess respecting the position of women during labour refer almost solely to that, or those, which have been adopted in different ages by civilized or half-civilized nations; but as regards the young girl, European, Indian, or Negress, who has retired into solitude and concealment because new and peculiar pains warn her that her pregnancy is about to terminate, but in utter ignorance of everything beyond this fact; as regards the manner in which this child of instinct will act at the moment of parturition we know but little.

In the earliest periods of civilized life to which history bears record, women appear to have been delivered in a sitting posture, upon a seat constructed for the purpose. Thus in the instructions which the king of Egypt gave to the Hebrew midwives, he is recorded to have said, "When ye do the office of a midwife to the Hebrew women, and see them upon the stools; if it be a son, then ye shall kill him; but if it be a daughter, then she shall live." (Exod. i. 16.) The sitting posture appears to have been that chiefly used in civilized nations from these early times down to the last century, and doubtless suggested the well-known labour-chairs of H. van Deventer and others; and Dr. Smellie mentions (vol. i. p. 203, 4th ed.) that in remote parts of England "the patient is seated on a stool made in the form of a semicircle; in other places she is placed on a woman's lap; and some, kneeling on a large cushion, are delivered backwards."

The supine posture, which is still so common (and, indeed, almost universal) on the continent appears to have been used in England during the early part of the last century. Chapman (1735) recommends the supine posture for turning the child, which I scarcely think he would have done if he had

been accustomed to cases of ordinary labour with the patient lying on her side. I have the impression also that in Giffard's cases I have met with allusions to the supine posture as that which was adopted during labour.

In Scotland the position on the back or the side appears to have been used indifferently till a much later period. Thus Alexander Hamilton (1775) says (p. 137), that the patient is to be "placed on her side or back;" although his celebrated namesake, Dr. Alexander Hamilton, in 1784, limits the patient's position to being "placed on her side." (*Outlines of the Theory and Practice of Midwifery*, p. 208.) Dr. Spence, who also published his "System of Midwifery" at Edinburgh in 1784, advocates the position on the side, inasmuch as "by this situation the woman may lie as safe and comfortable as her ease will admit of;" but he adds, "though this position seems preferable to the others that I have mentioned, it must be allowed that each of them has very great advantages in particular cases" (p. 151). In speaking of "the position of women during labour" (p. 148), he first alludes to the reclining posture which was adopted in those countries where Deventer's chair was used, and states that it was "nearly the same with that of women when delivered upon the common delivery-chairs used in the Lying-in Hospitals, and which some imitate by placing the woman to be delivered in the lap of a robust female." "The next position, and one which is pretty much practised in the northern parts of this country, is where women are delivered hanging about the neck of a person as tall, or rather, if possible, taller than themselves, who gently supports the small of the patient's back with her hands, and with her knees fixes the knees of the woman in labour. Other women incline to be delivered kneeling down at the side of a bed or chair, and leaning upon it with their elbows and head" (p. 149).

In treating of this subject, the late C. White, of Manchester, is perhaps the first who has distinctly pointed out that the horizontal posture, especially on one side, is the fittest for a woman to be in during the actual expulsion of the child. "When the business is so far advanced that there is reason to believe the child will soon be born, it is, in my opinion, of great consequence that the woman should be in an horizontal position, and it will be most convenient if she lie upon her side towards the practitioner. Other positions, indeed, such as standing, sitting, hanging by the arms between two persons, half-sitting and half-lying, either upon the bed or the knee of an assistant, may be, and I believe are, often serviceable in expediting delivery, and are therefore extremely proper in slow, tedious labours, except at the conclusion; but I would by no means advise that the child should in any case whatever be born, or the placenta extracted in any of these positions." (*C. White on Lying-in Women*, p. 105.) This quotation contains, in fact, a summary of nearly all we know as to why one position should be better than another for a woman during the act of parturition; and his observations apply with peculiar force to where the patient is in a sitting position, as it is a well-known fact that the expulsion of the child while the mother is in this position, especially if at the same time she has the means of fixing her extremities so as to strain with greater effect (as when on a labour-chair), is especially liable to be attended with laceration of the perinæum:—thus Tolver remarks, that "at Brussels, where Deventer's chair is indiscriminately used, lacerations of the fourchette and perinæum are very frequent." (*On the present State of Midwifery in Paris, by A. Tolver*, 1770, p. 9.)

Mr. White has, however, discussed the very point in question, in describing the manner in which a young woman might be supposed to act during labour, if out of reach of any assistance. "Should a straight, healthy young woman, who had never suffered from improper dress, inactivity, or unwholesome diet, be seized with labour-pains upon an open common, totally unattended, and with no assistance near, she would for some time walk about, then sit down to rest, then rise and walk again, till, for her own case and the safety of the child, she would find it necessary to lie down."

My late excellent friend and teacher, Prof. Naegelé, of Heidelberg, feeling much interest in this subject, made the following experiment, to determine as far as possible how a young woman, who was entirely ignorant of parturition, would act during this process if left completely to herself. A young unmarried girl, who, from her youth and extreme simplicity appeared to be a favourable subject for the experiment, was selected at the Hospital. Her room was furnished with a few chairs, a bed, a sofa, and also a labour-chair. All allusions to her labour were carefully abstained from. During the first half of labour she took her pains in a variety of ways, sometimes standing against the wall, at others leaning over the back of a chair, etc. When tired of standing, she sat down, and could not at first make up her mind which was most comfortable, a chair or the sofa. One trial of the labour-chair was quite conclusive to her mind, and she did not repeat the attempt. As the straining pains of the last stage came on she began to lie down, first on the sofa, then on the bed, which she ultimately preferred, rolling first on one side, then on the other, or taking her pains lying on her back; but when the expulsion of the head commenced she turned upon her left side, and the child was born in this posture. I may add, that the result of this experiment chiefly influenced Professor Naegelé in adopting the position on the left side, or English position, as it is called abroad, and which had been introduced at Vienna some years previously by the celebrated Boer, after his visit to this country.

A West Indian friend, at my request, sought information on this subject from an old planter who had lived in Jamaica; many years before the emancipation of the slaves there; and his observations, although not in accordance with the opinion which I have ventured to give respecting the position which a woman takes during the expulsion of her child, are too interesting to omit here. He remarks that "there is no natural position, but positions—no more than for a man with colic, for instance, the West Indian 'dry belly.'" "Idleness or exercise produce their consequences there as elsewhere. At the ——— estate many women died and many children in parturition. The cause appeared that the women were ordered to go to the hot-houses, or allowed to do little or no work some weeks, perhaps months, before lying-in. An order given that they should work up to the latest before they were put to bed had the effect that no women died in childbirth, and no children by difficult delivery. In place of a loss of women and children that year, forty to forty-four children were added to the estate, and the premium allowed by the county to the overseer was awarded to ——, which he generously distributed among the mothers. Anything African was forgotten, for few, probably no women were imported; girls only, who consequently produced their children *à la Creole*, or *à l'Anglaise*, or *à l'Ecossaise*. Civilization has put the English on their sides—the French on their backs. A girl or woman in the bush would know no natural posture other than turning, lying, rolling, or remaining in that posture in which she had least pain." This, therefore, seems to confirm the observations of Dr. Schütz and of Dr. Cohen van Baren, that, after all, it appears to depend in great measure on accidental circumstances which determine what position an unassisted woman assumes when seized with the violent pains which effect the expulsion of the child; that in a state of nature, and also in civilized life when deprived of the ordinary arrangements and conveniences for her labour, she will be influenced by a variety of circumstances. If the labour be long and tedious, and she be considerably exhausted, she will almost certainly have assumed the recumbent posture long before the expulsion of the child. On the other hand, if the process has been quick, she will continue in the standing, kneeling, or other postures, as mentioned by Drs. Schütz and Cohen van Baren, until the end; but that when enjoying the comforts and attendance which belong to civilized life, she will, in great measure, be guided by the arrangements which are made for her confinement, and will assume that posture for which they are specially adapted.

THREE CASES IN WHICH TRACHEOTOMY WAS PERFORMED,

WITH REMARKS UPON THE AFTER TREATMENT,

BY HORACE K. DEBENHAM, Esq.

THREE cases of tracheotomy which have occurred in my own practice during the last six months, and which I have carefully watched, convince me that the success or failure of the operation depends in a very great degree upon the subsequent management of the case. The immediate dangers attendant upon the operation itself, hæmorrhage, the introduction of blood into the trachea, or of air into the veins—once over-

come, the great proportion of deaths would appear to result from one of two causes—1st, extension of inflammation to the bronchi and substance of the lungs; and, 2ndly, clogging of the tube, trachea, or bronchi with masses of thickened and and tenacious secretion, which the efforts of the patient and the attendants are unable to dislodge.

The inhalation of air freely impregnated with aqueous vapour has, I believe, a beneficial effect in arresting the extension of inflammation; but there can be no doubt of its exercising a most valuable influence in promoting expectoration, by keeping the secretions moist, and lessening their tendency to become gummy and adhesive, in which their great danger consists. I found that placing the patient in a four-post bedstead, with the curtains drawn and pinned closely round, and having upon the counterpane three or four large shallow pans filled with boiling water (which must be changed frequently) answered the purpose extremely well; I also hung several towels, moistened with water, upon a clothes-horse before the fire. I often observed that when a portion of thickened secretion had obstructed the passage, giving rise to coughing, great restlessness and tremendous efforts at inspiration, the holding a sponge moistened with boiling water over the tube, would soon cause the sound of crepitation to be mixed up with the harsh loud breathing, when a fortunate cough would presently dislodge the obstructing mass. If this failed, the introduction on the end of a probe of three or four drops of tepid water, either through the tube or into the wound itself when the tube was removed for the purpose, often succeeded when matters were looking really desperate. I was induced to adopt this plan from observing how invariably in case No. 2 the drinking of fluid was followed by copious expectoration, evidently due to the secretion being thinned by the liquid which was imbibed finding its way into the trachea, apparently trickling through the opening of the glottis, the nerves guarding which had, for the time being, ceased to respond to the accustomed stimulus. The following are brief notes of the cases referred to:—

No. 1.—Mr. T. N., æt. 62, residing at Limehouse, applied to me early in October, 1856, complaining of hoarseness, laryngial cough, difficulty of breathing, and inability of speaking above a whisper, which symptoms had troubled him more or less for nine months. There was no history of syphilis, but he had been very much exposed to the weather. Viewing it as a case of chronic laryngitis, I put him slowly under the influence of mercury, and repeatedly blistered the throat. Iodine was afterwards applied externally, and iodide of potassium taken internally for a considerable period; lastly, a seton was put in over the thyroid cartilage, and retained for some weeks, but with no good result; and by the end of December his cough was incessant, his breathing much laboured, his lips and fingers of a bluish tinge; he was daily and rapidly losing flesh and strength, he obtained scarcely any sleep, and was quite unable to leave his bed. Although his life was not immediately threatened, it was evident he could not hold out many days with the imperfect supply of air he was able to obtain. Under these circumstances I recommended tracheotomy, to which he at once consented, and I requested that Mr. Curling might meet me in consultation, and he at once sanctioned and performed the operation. The relief was most striking; *the cough ceased immediately*, the patient speedily gained flesh and strength, and when I last saw him in May, four months after the operation, he was capable of walking several miles.

As soon as Mr. N. had recovered from the operation, the tube was fitted with a valve opening inwards, which admitted of his inspiring through the tube, and expiring through the glottis, and thus enabled him to speak as well as he was capable of doing prior to the operation. But the disease in the larynx evidently progressed, he was not able to employ the valve more than a few weeks, and in May the use of it, even for half a minute, caused him intense distress, clearly proving how entirely his life was dependant on the artificial opening.

No. 2.—I was requested, on the 28th of February, 1857, to visit Master H. H., living in Stepney, a remarkably intelligent lad 5 years of age. He had well marked symptoms of croup, which increased steadily in severity until the morning of the 5th of March, when Dr. Munk saw him with me in consultation. The treatment pursued had been at first full doses of tartar emetic, followed by calomel in two-grain doses every four hours, and a blister to the throat. Dr. Munk advised that the calomel should be persevered with, but given more frequently. In the evening of the same day I was hastily summoned, and found the boy evidently dying. He was perfectly unconscious, hands and feet quite cold, pulse scarcely to be felt, and eyes glazed over. In the morning I had proposed tracheotomy, which was objected to, but his relatives now wished it done; and, assisted by my friend Mr. Jenkins, I at once opened the trachea, although I must confess, at so advanced a stage of the disease, with scarcely any hope of a favourable result. After the operation no medicine was given, but wine and beef-tea were administered freely until the third day, when it was noticed that food escaped through the wound, and the child for the first time complained of intense pain on swallowing, so much so that for three days and two nights he would take nothing by the mouth but a teaspoonful of cold water now and then, and he was entirely supported during this time by nutritious enemata.

The power of swallowing, however, gradually returned, and he slowly gained strength, but every attempt to leave off the tube gave rise to such urgent and serious distress that it could not be persevered in. Mr. Curling, who has kindly seen the case in consultation several times, is, with myself, of opinion that the boy will be obliged to wear the tube permanently. Master H. is now, six months after the operation, well and strong, and capable of any amount of exertion: his friends remove, clean, and replace the tube for him without any difficulty.

No. 3.—Miss E. D., a very stout child, aged 4 years, had a harsh ringing cough for some days preceding the night of the 6th of May, when she was seized with symptoms of severe and well marked croup, and her mother in great alarm brought her to my house in a cab at 9 o'clock the following morning, thinking that she would obtain medicine more quickly than if she sent for me to visit her. The exposure to a cold east wind appeared to have aggravated the symptoms, and when I saw the child she was so restless as to be retained in the lap with difficulty. Respirations between 40 and 50, and the pulse extremely feeble and over 160 in the minute; fingers, toes, and lips livid, and twice within a few minutes there was such a fearful spasm of the glottis that I thought it would have been necessary to open the trachea in my own house.

I at once despatched a messenger for Dr. Jeaffreson, and afterwards accompanied the child and her mother to their home in Limehouse; but the patient was scarcely put to bed when it became evident that any further delay would be fatal; and I, therefore, assisted by my brother, at once opened the trachea, with immediate relief to all the symptoms, and the child slept during the greater part of the day. Dr. Jeaffreson on his visit some hours after the operation advised that no medicine should be given, but that mercurial ointment be rubbed into the thighs, which was done. All went on well for the first six days, the child took nourishment freely, was cheerful, and even amused herself with her playthings, and I was very sanguine as to her recovery, when unfortunately, on the 7th day erysipelas set in, quickly spreading from the margin of the wound to the face and head, and proving fatal on the 8th. The breathing and expectoration were quite free to the last. Permission to make a post-mortem examination could not be obtained.

Commercial-road East.

CASE OF FRACTURE, WITH DEPRESSION OF THE SKULL, IN AN INFANT SEVEN MONTHS OLD.

TREPHINING — DEATH — REMARKS.

By JOHN GAY, F.R.C.S.
Surgeon to the Great Northern Hospital, etc.

John Clements, nearly eight months of age; admitted into the Great Northern Hospital, under Mr. Gay, August 27, 1857.

He is an emaciated child; complexion pallid, lips rather livid, eyes sunk, and covered with conjunctival mucus; skin cool, except on the forehead; anterior fontanelle depressed; pulse very frequent, but not without power; it is fuller in the right than in the left wrist. Cry tolerably loud and strong.

The child lies on its back, sawing the air with its right arm and right leg at pretty regular intervals of five or six seconds.

The movement lasts about as long as the intermissions. The left leg is occasionally thrown about, but irregularly. The left arm is rarely moved.

Nearly on the centre of the left parietal bone is a well-marked depression of the cranium, about an inch and a-half long, and the eighth of an inch in its deepest part. The overlying integument bears no mark of violence.

The history given by the mother is as follows:—Twenty-five days since the child was left in charge of a nurse, who sent for the mother, stating that the child had fallen out of its bassinet on to a mahogany stool, striking the side of the head at the spot where the depression was noticed. (This statement, however, was not credited by the parents, the stool having no sharp angles, and the distance through which the child would have fallen being too trifling to occasion so marked an injury.) The mother arrived immediately, and found the child insensible. It remained so for six or seven minutes, when it recovered, and continued apparently well for fourteen days (*i. e.* up to eleven days since). At this time diarrhœa came on, for which it had Medical advice. Eight days since, the diarrhœa continuing, it had "a fit." Four days since, the diarrhœa ceased; but, at the same time, the sawing movements of the right arm and leg were first noticed, and they have continued ever since. The mother endeavoured to bring the child to the Hospital yesterday, but as it was seized with convulsions in the street she was alarmed, and took it home again. It was, therefore, first seen to-day (August 27).

At 6.30 p.m. (the child having been placed under the influence of chloroform), Mr. Gay (Drs. Handfield Jones, Leared, and Coote being present), removed the greater part of the depressed portion of bone by means of the trephine. The portion of bone removed presented a sharp fissured ledge, having a pointed extremity. During the influence of chloroform the sawing movements ceased entirely. The child recovered perfectly from its influence, and appeared much quieter, taking the breast readily.

Beef-tea and a little ammonia were administered constantly during the night, but after a time the sawing movements recommenced, the child gradually sank, and it died quietly at 3 a.m. on the 28th without further change.

The head was examined on the following day at 2 p.m. The left hemisphere, immediately under the seat of injury, presented a permanent depression, accurately corresponding to that observed in the cranium. The dura mater covering it was perfectly healthy. The arachnoid presented no abnormal appearance. The brain appeared generally anæmic and badly nourished. Its consistency was rather firmer on the left than on the right side, and the ventricle on the left seemed to contain rather more fluid than that on the other side.

The texture of the left hemisphere under the depression presented no abnormal appearance.

The corpora striata and optic thalami were, like all other parts of the brain, pale, but, to all appearance, otherwise normal on both sides.

The base of the brain and the cerebellum were perfectly normal.

No other parts of the body were examined.

For the foregoing details I am indebted to my esteemed colleague, Dr. Coote.

Cases of bulging in of the skull of infants are by no means uncommon; but as, from the yielding nature of the bone, the cerebral pulsation, and the elasticity of the brain, the depressed portion of bone is usually, in process of time, restored to its proper level, and symptoms of consequence rarely present themselves, these cases have not met with much special attention from the profession. Sir Charles Bell, in his "Institutes," merely remarks, that "a depressed bone (in infants) is known to rise again after a time to its level;" and, in the event of its remaining depressed, most frequently no inconvenience appears to attend it. My friend Mr. Rayner, of Kingsland, has recently shown me a case, in which a large portion of the parietal bone of an infant was much depressed by the perhaps too violent use of the forceps during parturition. No cerebral symptoms followed; and now, nearly two years after birth, the bone is very nearly restored to its proper position.

The case recited forms an exception to the general rule, and suggests several interesting, if not practically valuable thoughts, in reference to this form of accident.

There can be no doubt, I think, but that the symptoms which immediately preceded death were due to the injury sustained by the brain and its membranes, in consequence of the depressed bone. Those of concussion which attended the accident had passed away; even the time after such an accident at which (in the event of their occurring) symptoms of inflammation of the brain or its meninges usually display themselves had passed; and yet presently (a month after the accident) unequivocal evidence of irritation of the motory ganglion, on the side corresponding to the seat of injury, betrays itself; the offending portion of bone is removed, and yet the child dies.

It would appear, then, that the depressed bone was ready to localise diseased action, whenever the system should be in a condition to originate it; and the diarrhœa which anticipated the convulsions clearly showed that such a condition had been somehow induced. And not only so, but the important facts, from the Registrar General's report for 1854, that of 1204 persons of all ages who died in the metropolitan district from convulsions, 1184 were children under five years of age, and that, of these, 954 had not attained to their second year, help us to the conclusion that, for some, perhaps unascertained, reason, the infantile nervous system readily becomes the prey to serious disorder. Still there is every reason to apprehend that a similar concurrence of conditions has taken place in other cases, *i. e.* that there have been depressed portions of skull, constitutional disorder, and the tendency to cerebral disease peculiar to infants; and yet no such results have followed as in the case under consideration. We must look, I think, for the explanation of this seeming anomaly to the peculiarity of the depression or bulging of the injured bone, and borrow some light from this class of accidents in adults, in whom the severity of the symptoms following fracture with depression, is generally greater when a spicula, a point, or a sharp ridge of bone happens to be depressed, than when the depressed bone is broad, and presents an even surface to the dura mater. I cannot but think that in this case the peculiar shape of the depressed and fractured bone, presenting, as it did, a tolerably sharp point and ridge to the dura mater, had much to do with the intensity of the symptoms, as well as with the persistence of the indentation which had been made in the hemisphere, and which, perhaps, to a very great extent, contributed to render the case so hopeless. The use of the trephine was, I think, indicated; but it was too late. The brain and the system at large had suffered too severely from the injuries they had sustained, and consequently the child sank.

The practical conclusion which these considerations would seem to justify is this: that whereas in cases of depression of bone in infants, in which the depressed portion does not present any abrupt point or sharp ridge towards the brain, no treatment is in general indicated; on the contrary, the use of the trephine is indicated where unevenness exists, and should not be delayed a moment after the outbreak of symptoms of cerebral irritation.

I may be excused from drawing attention to another thought which this case suggests.

Dr. Coote (I was not able to be present at the post-mortem examination) reports, that "the brain appeared generally anæmic, and badly nourished;" a fact which might have been premised from the aspect of the child when it was first presented to our notice. I am quite sure that all who have had any extensive experience of the diseases of children will concur with me in referring most of those diseases which occur during the period of suckling, and sometimes afterwards, to insufficient and bad nourishment. Perhaps one of the most piteous sights in nature is that, too often presented to the view of the professional man, of a half-starved infant drawing its meagre supply of sustenance from a squalid-looking and half-starved mother; and the reflection is as lamentable, that in all probability the large mortality of children under twelve months of age from convulsive disorders is due to inanition,—in other words, to starvation even at the mother's breast. The accession of these disorders of the brain cannot be accounted for upon any other known laws by which the functions of the animal economy are regulated. The brain is at that age to a considerable extent in a negative condition as regards its functional activity, and it is most assuredly not prone to disorder through the influence of hereditary predisposition: hence it may be regarded as more than probable that these convulsive disorders of infants arise from perfectly controllable causes, and that consequently in this country

thousands of lives are annually lost during the period of suckling which might have been saved; and not only so, but that of the thousands who survive these attacks many grow up deteriorated, in consequence of them, both in mind and body; others become hampered by physical imperfections, which impair their usefulness and energies; whilst not a few are destined to swell the class of imbecile and idiot persons who now compose so large a section of the community. Is there no help for this?

THE LONDON

PRACTICE OF MEDICINE AND SURGERY.

GUY'S HOSPITAL.

ILLUSTRATIONS OF THE CONTAGION OF TYPHUS FEVER.

(Cases from the Notes of Mr. Joyce.)

Among the various events occurring in the course of fever, contagion has been regarded by many writers as the most important as a test for deciding the question of the duality of the disease, since, if it can be shown that the typhus and typhoid are constantly occurring together in several members of a family, the evidence would be almost conclusive in favour of their identity. No such instances, however, that we are aware of, have yet been published, while the occurrence of fever of one particular form in various members of a family is daily witnessed. This fact, however, is not of the same equivalent value in proving a difference as the opposite would be in establishing an identity; yet, even as a negative fact, it gains strength by constant repetition, and becomes at last of great value in the argument, especially when both young and old are seen to be subjects of the same form of disease, since age is considered, by the opponents of the new theory, as the great determining cause for the variety of the affection.

The cases of fever have been very carefully taken at Guy's Hospital for some years past, and in very many instances contagion has been traced; and in all these the form of disease in the subjects under notice has invariably been the same as that of the persons in the residence whence the patient has come. Mr. Joyce, one of the pupils, has been for some time industriously working at the subject, and has taken the trouble in many cases to trace the disease to its source; and in one instance, he found several members of the family, including the youngest child, only 4 years of age, suffering from genuine typhus. As the cases afford striking examples of the effects of a specific contagious influence producing a similar set of symptoms in all who were subject to it, whether they were young children, or adults who took the fever from them, we will briefly give the particulars; the only difference being the existence of a more marked rash in the adult, and its occasional absence in the child, or, if present, its bright character and resemblance to measles.

Case 1.—Patrick Crook, aged 11 years, residing at 17, Peter-street, Borough, was admitted into Stephen Ward on July 23, 1836, under the care of Dr. Hughes. He was taken ill about three days before admission. When admitted he was in a state of drowsy stupor; there were a few indistinct spots on the abdomen; the bowels were confined. He progressed favourably, requiring the occasional administration of purgative medicines, and left the Hospital cured on August 8.

Case 2.—During the time the above Patrick Crook was in the Hospital, one of his sisters, Mary Crook, residing in the same house, was admitted into Mary Ward, St. Thomas's Hospital. The mother of the child stated that at the time of her daughter's admission into the above establishment she was covered with a rash like the measles; and that a gentleman in the Hospital told her, at the time of her daughter's admission, that she was suffering from measles, but on the following day she was informed that her daughter was suffering from typhus fever. She progressed favourably, and left the Hospital cured about the end of September.

Case 3.—On September 24 a brother of the same family was admitted into Stephen Ward under Dr. Rees. On admission he stated that he caught his present disease through going to visit his sister, the above Mary Crook, while she was in St. Thomas's Hospital. On admission he had been ill four days; there was no eruption to be observed, the skin was hot, face flushed; he had no sore throat; bowels confined. No fresh symptoms presented themselves, and he left the Hospital cured on October 14.

Case 4.—On the 29th of October another brother of the same family, James Crook, aged 6, was admitted into Stephen Ward, No. 8 bed, under the care of Dr. Hughes. On the sixth day before admission he first had vomiting, accompanied by slight shivering and head-ache, with a sense of feverishness; and on the following day he was unable to leave his bed, the pain in the head having become much more severe, and the feverishness having increased. At the time of his admission, his face, thorax, and abdomen, were covered with a measly looking rash, the whole of the skin of these parts was of a dirty dusky appearance, upon which were to be discovered numerous ill-defined, irregular-shaped spots of a mulberry colour, coalescing in many places and forming patches; these spots were persistent on pressure, and did not feel at all elevated on passing the fingers over the skin; the tongue was covered with a white fir; bowels confined. On the day after his admission he appeared to have improved a little, the eruption on the face and trunk was fainter, but the upper extremities had become covered with a similar eruption. The bowels were relieved during the morning; the motion was of a dark colour, but not at all relaxed. After this day the patient rapidly improved; the rash gradually disappeared, and he left the Hospital cured on the 21st of November.

Case 5.—At the time of his admission, this last patient informed me that his sister, Mary Ann Crook, aged 4 years, was then at home ill, suffering apparently from the same disease as himself; and, upon going to the house, I found the child presenting all the symptoms of typhus fever. The abdomen was covered with the characteristic rash, the skin of the part having the usual dusky appearance. There was no eruption on the face or extremities. When the above James Crook was admitted into Stephen Ward, there were no cases of continued fever in it, the last case that was admitted being that of his brother, who was discharged cured fifteen days before the brother James Crook was admitted. There had not been a case of typhoid fever admitted into this ward during the previous two months.

Case 6.—When the patient James Crook was admitted, he was placed in No. 8 bed. About a week before his admission a patient of the name of John Wright was admitted into the same ward, for some obscure spinal affection, and was placed in the next bed, No. 9. On the day before the patient James Crook left the Hospital, John Wright presented symptoms of continued fever. He complained of great prostration and painful lassitude, constant sense of nausea, and occasional vomiting. On the following day, Nov. 21, the above symptoms presented themselves in an increased degree; he had passed a restless night, skin hot, bowels confined.

23rd.—Remains much the same; bowels have not been relieved for three days. To have a dose of aperient mixture directly; the bowels were relieved in the evening.

25th.—Appears to be getting worse; he lies on his side, in a drowsy, semi-conscious looking condition; has passed a restless night; pulse 100, and irregular. Upon examining the abdomen, it was found to be covered with an eruption, consisting of distinct spots of a purple-rose colour, slightly elevated, and disappearing on pressure. The whole of the skin of the abdomen has a dusky, dirty appearance, which appears to be dependent upon a subcuticular rash.

26th.—His general appearance is somewhat improved; his skin is cooler; pulse 106, feeble, but more regular; the spots on the abdomen are of a deeper colour, and more diffused, and no longer disappear on pressure.

27th.—Not so well, appears more drowsy; the bowels have not been relieved since the 24th; his speech is indistinct, and he is a little deaf. The eruption presents about the same appearance as on the previous day.

28th.—Appears to be worse; tongue dry, and covered with a brownish fur, protruded slowly, and but a short distance beyond the teeth; he lies on his back in a drowsy condition, but is aroused without much difficulty; the eruption remains unaltered; bowels regular.

December 1.—He is somewhat better, tongue is moister, the rash is fainter, and has disappeared in some parts.

From this time he gradually convalesced, the eruption became less and less visible, and had disappeared entirely

on the 5th, and on the 19th he was again placed under treatment for his spinal affection.

Case 7.—About ten days after the above patient first presented symptoms of continued fever, the sister of the ward (who had been confined to her room with acute rheumatism), was found to have typhus fever.

Case 8.—David Wiseman, aged 34, was admitted into Stephen Ward, No. 22, November 5, 1857, for some obscure disease of his urinary organs. On the 3rd of December he complained of great nervous depression, and severe headache. On the following day he appeared to be rather worse. On December 5 his prostration appears to have increased, his tongue is slightly furred, and protruded in a tremulous manner; has passed a sleepless night; bowels are confined.

December 6.—Complains of feeling much worse. Skin is hot; pulse 114. Complains of great thirst; has passed a restless night; bowels were relieved during the night.

8th.—Complains of feeling very ill; his tongue is covered with a white fur; complains of very severe pain in the head; has passed a restless night, but has not been at all delirious; pulse 120. Bowels confined. Upon examination the skin of the abdomen is found to be covered with a rash consisting of irregular-shaped, purple rose-coloured spots. They are slightly raised, and disappear on pressure; they appear to be spread equally over the skin of the abdomen.

9th.—Remains much the same; pulse 120; bowels relieved this morning; still complains of severe headache; the eruption is fuller, the spots are no longer elevated, and do not disappear on pressure; the whole skin of the abdomen has a dusky, dirty appearance.

10th.—Remains in about the same condition as on the previous day.

11th.—He appears to be somewhat improved; his skin is cooler; the eruption presents the same characters as on the second day of its appearance.

13th.—Is very low this morning; pulse feeble; heart-sounds are scarcely audible; skin cool. The eruption appears to be somewhat fainter.

15th.—Improving; pulse very feeble; the eruption appears to be gradually disappearing. After this date he gradually convalesced; on the 20th the eruption had entirely disappeared, and on Jan. 6, 1857, he was presented cured.

Up to the time the above David Wiseman first showed symptoms of continued fever, there had been no fresh cases of fever admitted into this ward.

Dr. Wilks informs us that no well-marked cases have yet occurred at Guy's which at all disprove the double nature of continued fever, and that during the last year, since he has ceased to collect the cases, he has not seen or heard of any one instance which would substantiate the opposite views. Difficulties have certainly existed sometimes at the onset of the fever in determining its form as well as in ascertaining the nature of the disease itself; but as regards those cases which ran their whole course, and more particularly in those which were fatal, the most marked distinctions prevailed. The mortality has been very slight, considering the constant admission of fever into the Hospital. The prevailing type, as in the preceding year, appears to have been the typhus, and so differing from the rule which was in force a few years ago. During the last few weeks, however, several cases of typhoid have been taken in, and in several of these direct contagion has been proved.

Dr. Wilks also remarks upon the fact that the closer study of fever of late years has been of great service in modifying its treatment. Being found to have a certain definite duration in its two forms, the office of Physician has been simply to conduct his patient through the disease. As a consequence, the indiscriminate use of a purge in the first instance has been given up; and, since the brain is known to be only one organ in common with others participating in the general derangement of the system, it is not made the special seat of treatment by leeches, blisters, lotions, &c. The plan adopted by most of the Guy's Physicians is to administer no medicine to the patient, but simply to watch him, and if towards the height of the disorder he should be more than ordinarily prostrate, to give a stimulus. During the last year the mortality has been excessively small, and most cases have been treated on this negative plan; among them several cases of typhus, with mulberry rash, which recovered well without any medicine, a fortnight in bed being considered the only requirement. Although such has been the rule of treatment, it should be stated that some Physicians have still confidence in wine, and administer it from the very commencement of the disorder.

CITY HOSPITAL FOR DISEASES OF THE CHEST.

SUPPOSED HERNIA OF THE LUNG, ALSO SLIGHT BRONZING OF THE SKIN.

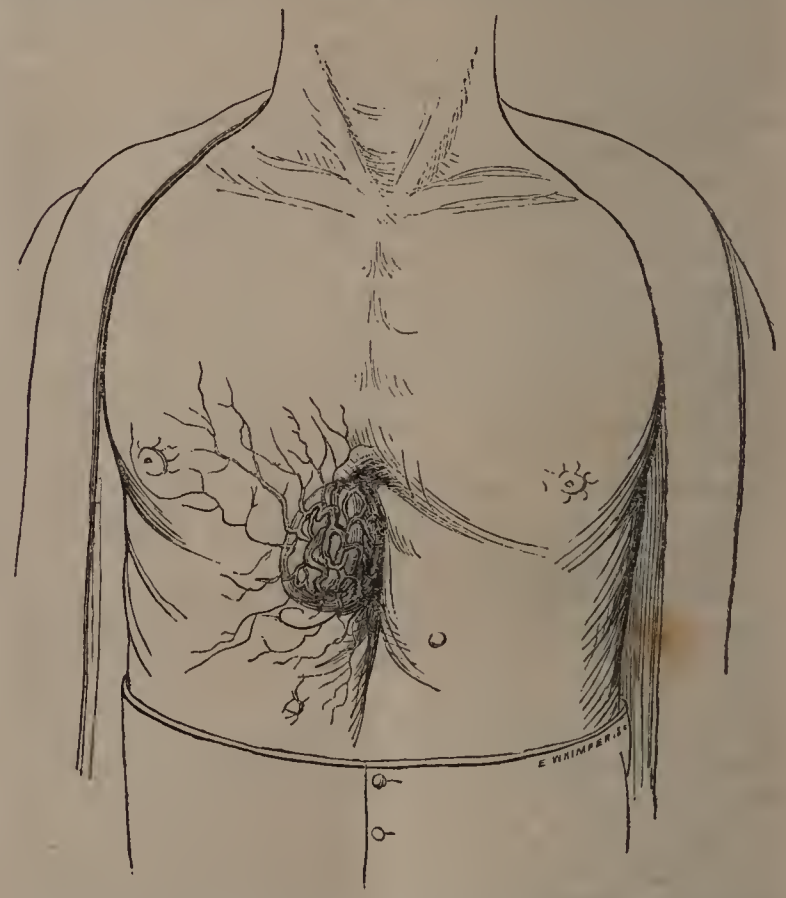
DEATH.—NÆVUS ON THE CHEST AND COMMENCING DISEASE OF THE SUPRA-RENAL CAPSULES.

(Under the care of Dr. EDWARDS.)

J. C. aged 48, a tolerably well nourished man, of dark complexion; skin over face slightly bronzed, but not so in any other part of body; pulse 120, full and soft; tongue nearly clean, and moist; has little appetite, and occasional vomiting after food; bowels open daily; urine free; complains of cough, with expectoration of thick, frothy sputa of a yellowish colour; once (more than two years ago) spat a mouthful of blood; has dyspnœa, increased on deep breathing or exertion; has lost flesh and strength, but not to any great extent.

Immediately to the right of the sternum is a well defined tumour, about the size of a horse-chestnut, over which the superficial veins are very prominent, as they also are between it and the right mamma. The tumour appears to be situated between the 7th and 8th ribs, is soft, not pulsating, receding, and rather tender on pressure, and is dull to percussion. Between it and the sternum there is a deep sulcus. On making forced respiratory efforts, as in coughing, the tumour becomes much larger, and the superficial veins much more prominent.

The appended woodcut shows the condition of the tumour during forced respiration. During quiet breathing it would sink down to a comparatively insignificant size, being, however, always present.



History.—He is a tailor, of temperate habits, and in good circumstances. He states that the tumour has existed from infancy, and was much larger when he was a boy than it is at present. For the last three years he has had cough and expectoration, which have gradually become worse. Has had no medical advice. No hereditary history of phthisis.

Auscultation.—Dulness on percussion, and large crepitation throughout both lungs, anteriorly and posteriorly — most marked on right side. Slight systolic murmur at apex of heart. Ordered: ol. morrhuæ, ʒij. ter die; quinæ disulph. gr. ij. pil. four o. n.; lin. crotonis tiglii, stern. For some time this

patient gradually improved, gained flesh and strength, and appeared in every respect better; but about the middle of July his cough and expectoration became worse, he lost flesh rapidly, and complained of great pain in his back. During this time I had observed the bronzing of the face to become more marked, but it was entirely absent in other parts. The disease progressed rapidly, and he died Sept. 1. The physical signs continued almost the same throughout.

The post-mortem examination was performed by my friend, Mr. Thomas Smith, thirty hours after death—weather warm and wet. Body much emaciated; no bronzing, except on face; no trace of the tumour which existed during life. On reflecting the skin, an appearance was presented in the situation of the tumour as of recent ecchymosis, and there was a quantity of soft, spongy tissue closely adherent to the skin, and resembling condensed lung. There was no deficiency either in the bones of the sternum or in the cartilages of the ribs. On removing the sternum, both lungs were found to be firmly bound down by old adhesions, the right being much more condensed than the left; both were thickly studded with tubercular matter. The heart was very large, and there were a few old deposits on the mitral valve, at its free margin; the other valves were healthy. The left kidney had a few tubercular deposits on the surface. The other organs were not examined, with the exception of the supra-renal capsules. Both these were unusually soft in texture, and about three-fourths of the structure of the right was wholly destroyed, and replaced by an opaque grey fibrinous mass. In the left organ there was no morbid deposit. On microscopical examination, the spongy tissue found in the situation where the tumour had existed during life, was seen to consist of the structure of an ordinary nævus. It was plain that there had been no hernia of the lung whatever.

IMPETIGO OF LOWER LIP TREATED BY CHLORATE OF POTASH.

(Under the care of Dr. EDWARDS.)

E. M. aged 27, envelope-folder. Came as out-patient to the City of London Hospital for Diseases of the Chest on April 23, 1856, under the care of my predecessor, Dr. Andrew Clark. From the short notes taken at the time of her admission, it appears that she was then suffering from general dyspeptic symptoms.

When I first saw her, in June, she complained of pain in the left side, with palpitation, increased on exertion; general weakness, and cold extremities. She had a cough without expectoration, and some emaciation. Her bowels were habitually confined.

Ordered, Tinct. ferri sesquichlor. ♏x.; acid. nitr. dil., acid. hydrochlor. dil. āā ♏x.; ex aquæ ʒj. ter die. Pil. aloe c. ferro, gr. v. o.n.

Under this treatment she improved somewhat up to about the middle of September, when she presented herself with a thick crust of impetigo entirely covering the lower lip. Her gums were spongy and vascular. She stated that she had a similar attack five years ago, from which she suffered for twelve months, and was treated for some time by Mr. Startin at the Hospital for Diseases of the Skin.

I continued the treatment as before, with the addition of ol. morrhuæ, ʒij. ter die, and the application of bread poultices to the lip. Subsequently the application of a strong solution of nitrate of silver was repeatedly practised, but without benefit.

Up to January 19 the patient remained much in the same state; the crust, which was easily removed by the poultice, always returning within twelve hours from the time of its application. I then ordered her potass. chlorat. gr. xv.; ex decoct. cinchonæ, ʒj. ter die. Lotio argent. nitr. ℈j. ad ʒj.

From this time she had only two or three returns of the impetiginous crust on the lip, although for some time there was a slight eruption at intervals; but for the last six months she has been perfectly free from any appearance of it whatever.

THE "GREAT NORTHERN" HOSPITAL.

COMPOUND DISLOCATION OF THE WRIST-JOINT, FROM THE BITE OF A HORSE.

(Under the care of Mr. GAY.)

James Malyon, aged 24, a stout farm-labourer, was admitted on the 31st of July, on account of a compound dislocation of the wrist, produced by the bite of a horse six weeks previously. The carpus was immoveably lodged on the end of the ulna; and the end of the radius, covered in part by granulation, protruded, to the extent of an inch and a half, through an ulcerated opening in the integuments on the outer side of the dislocated carpus. The exposed portion of bone had become carious. The ligaments, tendons, nerves, and vessels, in immediate relation to the joint had been torn through by the bite. The patient had no power over the joint; and that over the fingers was limited, as well by great stiffness in their tissues, as by the loss of a considerable portion of nervous influence. His elbow-joint was anchylosed, the result of a former injury. As the man's health was somewhat impaired, and he stated that he was exceedingly liable to hæmorrhage, he was placed upon a system of diet and medicine (iron, sulphuric acid, and sulphate of magnesia), preparatory to the measures which Mr. Gay thought proper to adopt on behalf of the dislocated joint.

On the 12th of August, his health being considerably improved, Mr. Gay enlarged the wound through which the end of the radius protruded, and sawed the bone through obliquely; and after releasing the integuments by dissecting them from the subjacent parts to which they had become attached, the edges of the wound were brought together and retained by stitches. By the 20th of the month the wound had begun to close in, and from that time, by the aid of strapping and a solution of sulphate of copper applied to the granulating surface, the process of healing went on, and was completed by the 17th of September, when he was discharged.

In the treatment of this somewhat untoward case, Mr. Gay considered that the hand should be saved; for although from the dislocation, and the thickening of the tissues around the joint, in consequence of the violent inflammatory action which must have succeeded to the injury, the limb was rendered almost useless, there was little doubt to be entertained but that hereafter much of its usefulness might be, by suitable treatment, regained. The question then arose, whether by any means the dislocation could be reduced, and reparation be thus effected without any loss of parts. Mr. Gay made the attempt while the patient was under chloroform, but with no success; and consequently was obliged to have recourse to the only alternative that appeared open to him, viz., of removing the end of the bone. Hereafter the new joint may be made, and admit of considerable motion, and the deformed and mutilated joint be yet made greatly serviceable to its possessor. The state of the ablated bone illustrates the well-known tendency of that tissue to become carious upon exposure to the atmosphere, and helps to remove the fallacy, that that condition, when it succeeds to ulceration so deep as to lay a bone bare, results from a contamination of the bone with that disease. It is not so, and the obstacle to treating such cases successfully arises, not from the difficulty of removing the carious surface, but of covering it in afterwards by soft tissue so as to seal it against the atmosphere, and thus prevent it being renewed. Mr. Gay thinks that all operations on carious bones should be so conducted that after the removal of the diseased bone, the surface should be instantly covered in by integuments, if necessary taken from the neighbourhood; and that the too constant failure of the treatment of caries, by simple scooping or cutting away the degenerate tissue, often arises from the neglect of this precaution against its return.

TREATMENT OF AN OLD ULCER BY INCISIONS ON EITHER SIDE.

W. T., aged 54, was admitted on the 31st of August, with an ulcer two inches in length and two-thirds of an inch in breadth, behind the inner malleolus. The surface was simply "indolent," having neither disposition to heal nor to spread. The skin around, for the space of two or more inches, was of a dull red colour, somewhat indurated, and so inelastic, that although it moved over the subjacent tissues, it moved "en masse." It had existed in almost a stationary condition for eight years, in opposition to treatment at different Institutions.

Mr. Gay thought it a fit case for incising; and accordingly made an elliptical incision, about half an inch from the border, on each side of the ulcer. The incisions extended through the superficial fascia, and so admitted of considerable gaping on the part of the wounds. The front passed through

a vein, which bled freely, but which was readily controlled. It should have been remarked that the superficial veins of the leg were somewhat, but not extensively varicose.

The surface of the ulcer began to change its aspect immediately after the cuts had been made. It became moist, and the dry brownish matter with which it was previously covered gave place to a thick dirty white discharge, which again was speedily superseded by healthy pus from florid and healthy granulations. The healing of the ulcer surface was so rapid, that by the 22nd of September it was completed, as well as that of one of the incisions. The other incision had so nearly healed that the patient was discharged on the 24th with a simple bandage, the skin itself having assumed in all respects a much more healthy condition.

HOSPITAL NOTES.

PYÆMIC ABSCESS IN THE SHEATH OF THE FEMORAL VESSELS.

The case of a man, who has recently died in Pitcairn Ward, St. Bartholomew's, under the care of Mr. Lloyd, is of much interest in several aspects. He was 39 years old, and first put himself under care on account of fistula by the side of the anus. This was laid open and healed well, and when it just healed he left the Hospital. His discharge was on a Friday. On the Saturday night following he had a rigor, attended with intense pain in the left hip. The pain continued most severe, and he was re-admitted on Monday morning. A large abscess formed in the buttock, and required opening. Soon after his re-admission a second abscess commenced to form over the femoral vessels; in a few days this also required opening. A most careful dissection was required in opening it, as Mr. Lloyd, and Mr. McWhinnie, who assisted him, agreed in the opinion that the pus occupied the sheath of the vessels. After it was opened the vessels were found exposed at its bottom. The man had now passed into a condition characteristic of chronic pyæmia, being exceedingly emaciated and feeble. Several other abscesses formed in different parts, and the discharge was very profuse. It was, however, at one time hoped that by the very free use of stimulants he might eventually pull through, as he displayed considerable constitutional power in resisting the disease. This hope was, however, disappointed, and after an illness of about six weeks he at length sank. The case is remarkable on account of the long interval which elapsed between the original operation, and the supervention of pyæmia; also in regard to the rarity of pyæmia after the mere laying open of a fistula; and, thirdly, from the unusual location of one of the abscesses.

LITHOTOMY AFTER A LITHOTRITY OPERATION.

Mr. Paget performed lithotomy a fortnight ago, at St. Bartholomew's, on a man in very poor health, and removed several fragments of a stone of considerable size. Mr. Paget stated that lithotrity had been practised three months ago by a Surgeon in the country, but that so much irritation had followed it that it had not been deemed wise to repeat it. During the two days following the crushing, about two drachms of fragments were said to have been discharged. In the course of the lithotomy operation an attempt was made to fit the fragments removed by Mr. Paget, when their shape and facets were found to be such as to render probable the existence of others. Mr. Paget, however, after a careful search, gave a confident opinion that none remained, and adverted to the very deceptive evidence which facets of calculi often afford as to the number present. He well recollected a case in which only two were present, and in which the appearance of four facets on one another induced the belief that many existed, and led to an injuriously protracted search.

Medical Benevolent Fund.—At the last meeting of this excellent charity at Mr. Churchill's, Sir John Forbes announced the gratifying fact, that he was authorized by a gentleman, whose name was not given, to contribute the magnificent donation of five hundred guineas to the Fund. This intelligence was received by the loud cheers of the Committee.

THE PROVINCIAL
PRACTICE OF MEDICINE AND SURGERY.

SUNDERLAND INFIRMARY.

CASE OF IMPERMEABLE STRICTURE OF THE URETHRA SUCCESSFULLY TREATED BY APPLICATION OF POTASSA FUSA.

Under the care of Mr. Wm. DIXON.

Reported by Mr. J. Barron.

W. G., aged 30, a smith by trade, admitted April 7, 1857, with impermeable stricture of the urethra. Has twice had gonorrhœa. The first attack, six years ago, lasted five or six weeks, and was not followed by any difficulty in voiding urine. The second attack, contracted three years ago, had lasted about three weeks, when he received a light blow on the under surface of the penis from the handle of a hammer, causing a considerable flow of blood from the urethra for about seven or eight minutes. Following this, he had a slight loss of blood for about a week, on making water. The gonorrhœal discharge and the hæmorrhage stopped at the same time. In about three weeks after this he began to feel a difficulty in passing his water, which ultimately, in about six months, began to come away in drops, ending in a total inability to retain it, being constantly wet with the continual draining, yet unable to empty his bladder. He kept partially at his work up to November, 1856, at which time he first began to observe the formation of a hard swelling on the left side of the perinæum, with a great deal of pain both in the swelling and surrounding parts. At this time the catheter was tried about four times; but it was not successful in passing more than about two or three inches up the urethra. He then poulticed the swelling for about a week, when it suppurated and discharged, and, in making water, he observed a small stream of urine gush out. Two other fistulous openings formed, and through these the urine continued to pass up to the time of admission. After the urine began to flow by the openings, he was able to retain it for about two hours. Has never suffered any constitutional effects from his attacks of gonorrhœa.

On admission, April 7, he was unable to pass the least drop of urine by the natural passage. On examining the perinæum, three fistulous openings were observed, through which the urine drained. There existed considerable induration and enlargement of the parts, from the anus through the whole extent of the perinæum.

Treatment.—In the circumstances in which this man presented himself, it would generally be concluded that the treatment to be pursued would be by external division, according to the method employed by Syme. It was determined, however, to try first the effect of potassa fusa. A piece of potassa fusa was inserted into the end of a common gum bougie, passed rapidly up the urethra to the stricture, held there for a second or two, and then as quickly withdrawn. After the first application, the urine was passed by urethra guttatim; after the second application, at an interval of three days, there was a more rapid dropping. The third application produced a small stream; and so the progress to improvement went on to perfect relief, there being in all six applications of the caustic. The fistulous apertures healed, the induration and enlargement of the perinæum gradually subsided, and the patient was discharged, attending once a week for the introduction of a bougie, in order to keep the passage patent. During the progress of the case, the patient took nightly, hyd. chlorid. with pulv. ipecac. co., so as slightly to affect the gums, when it was discontinued.

The Medical Society of King's College, London.—The inaugural meeting of this Society (session 1857-58) will be held on Thursday, October 8, at eight o'clock p.m., when Henry Smith, Esq., F.R.C.S., V.-P., will deliver the introductory address.

Royal Medical and Chirurgical Society.—The Library was reopened on Monday, the 14th instant.

The *Russian Medical Gazette* mentions that the late war entailed upon Russia the loss of 382 Medical men.

NOTES AND QUERIES.

He that questioneth much shall learn much.—Bacon.

No. 216.—M.D. Ad Eundem Degrees at Oxford.

I have just seen the diploma or degree granted to Dr. Levin Fludd (an English graduate of the University of Padua,) by the University of Oxford, admitting him in 1661 to the *ad eundem* degree of M.D. I wish this note inserted to inquire, first, if foreign M.D.'s, or Englishmen with foreign diplomas, are still admitted to *ad eundem* degrees at Oxford; and, secondly, if not, when did the practice cease?

Wandsworth, Oct. 1. I am, &c. W. and D.

No. 217.—Quackery Epigram.

I remember an epigram, running somewhat as follows—I want to know where it is to be found, and who is the author:—

A Quack to Charon would a penny pay:
The grateful ferryman was heard to say,
"Return, my friend! and live for ages more,
Or I must haul my useless boat ashore."

Sept 30, 1857. A Scribbler.

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Medical Times & Gazette.

SATURDAY, OCTOBER 3.

CHARGE OF PROCURING ABORTION.

A charge has lately been preferred against a Surgeon practising at Tunbridge, and the details are of so extraordinary a character in themselves, and involve such nice points of Medical jurisprudence that we make no apology for presenting to our readers both the narrative itself, which will be found at p. 357, and some remarks of our own.

We must premise our observations by the admission, on our part, that we are wholly unable to follow some parts of the history in consequence of the conflicting dates which are assigned to some of the transactions; and indeed we were disposed to believe that the account which was forwarded to us was an incorrect version of the proceedings; but after some inquiry we think it well to present it to our readers in the state in which we received it.

The accusation made is, that Mr. Delves employed a certain instrument, or practised some other means for procuring abortion in a woman whom he had previously seduced. It is alleged, that on the first Sunday in August, 1855, the prosecutrix, who is a servant at a beershop, was met in the streets by Mr. Delves, whom she had never known or spoken to before, but who entered into conversation with her, and who persuaded her, without any reluctance, as it appears, on her part, to accompany him home, where he commenced and carried on an improper intercourse with her. Now, according to the evidence, this intercourse continued at intervals until the 22nd of March, 1857, a period of about one year and eight months, and from its very commencement it appears that Mr. Delves was very anxious to know whether the girl was pregnant, and on being informed that such was the fact, at or about Christmas, 1855, he commenced giving her medicines to procure an abortion, which event, however, was not accomplished. The period between Christmas, 1855, and the beginning of the year, 1856, is not in any way accounted for, nor are we informed in the evidence of the prosecutrix, whether further attempts were made in this interval to procure the desired object, or whether indeed she took any medicine at all. Nor is it easy to understand how, supposing the girl to have been pregnant in December, 1855, and to have failed in procuring abortion in the February following, she escaped being delivered of a child at the usual time. This extraordinary and very mysterious history, however, is now suddenly carried on to April, 1857, when the girl again informs Mr. Delves that she is in the family way, and upon examination this is proved to be the case, and she is assured that it (?) can be destroyed by using an instrument if she would consent. The consent was given, and it was arranged that on the following Sunday the first operation should take place. The mode in which the operation was said to be performed will be presently noticed. After the first operation, *the proceedings were repeated in exactly the same manner*, and a second operation was performed on Sunday, the 22nd *March*, 1857, although we are told that she did not communicate the fact of her pregnancy *until April*. But as we have before remarked, the dates are wholly unintelligible, at least to ourselves.

Admitting, however, that a fœtus was extracted or expelled on the 22nd of March, 1857, it does not appear that any complaint was made to any one at the time; but on Sunday, the 5th of July, the girl and her brother-in-law went to the house of Mr. Delves to accuse him of the crime which had been committed; but on the next day, the 6th, she signed a paper, duly attested, declaring that "the accusation she had so wickedly made of being in the family way by Mr. Delves," and all the other statements respecting that gentleman, made by her, were entirely false. Notwithstanding this admission, she was afterwards examined by Dr. John Charles Cook, of London, who came down to Tunbridge for the express purpose of making the investigation; and we must say that the evidence of this gentleman is not the least extraordinary feature of this very marvellous history. The date of the alleged miscarriage was the 22nd of March, 1857, and Dr. Cook examined the girl on the 5th of August last, or nearly five months afterwards; and considering that his was the only Medical evidence bearing directly on the case, we must quote his own words.

"The prosecutrix had undoubtedly been pregnant for probably a period of four or five months. There were appearances not usually attendant upon a natural miscarriage, but consistent with the fact of instruments having been used by a skilful hand, though the lapse of time was so great as to render it impossible to form any decided opinion as to the mode by which the extraction had been made." On being subsequently asked whether he had formed an opinion whether or not instruments had been used, Dr. Cook says: "I should say they had been, but that is matter of opinion."

We confess to our being as much puzzled with Dr. Cook's evidence as with the dates. He gives a most positive opinion that the prosecutrix had been pregnant, and probably he had some grounds for this opinion; but we should have felt greater readiness to coincide in Dr. Cook's views, if we had known what those grounds were. How he conjectured that she had been pregnant for a period of four or five months we are at a loss to understand; for, although there are undoubtedly signs that a woman has been delivered, we are not aware of any

reliable indications to prove how many months the pregnancy may have lasted. Again, we are told that there were appearances not usually attendant upon a natural miscarriage, but consistent with the fact of instruments having been used by a skilful hand; and on being asked what was the evidence of instrumental delivery in the case, Dr. Cook stated that it was *a mere matter of opinion*. We must leave Dr. Cook to explain himself, and proceed to some other features in the proceedings.

It would appear that no accusation was made against Mr. Delves until early in July of this year; and we must say that the conduct of that gentleman, when so serious a charge was preferred, was quite compatible with his perfect innocence, and indeed irreconcilable with the consciousness of guilt. He peremptorily refused to see the girl, and at once threatened to commence proceedings in an indictment for perjury against her, unless she immediately retracted the charges she had made; and this course, as we have already seen, she willingly adopted. A man in the position of Mr. Delves, a Medical Practitioner in a country town, being accused of seduction in the first instance, and of feloniously procuring abortion in the second, would, one might suppose, have been too glad, in case he were guilty, to have compromised the matter by a pecuniary recompense to the injured party; and, considering the position of the girl, her easy virtue, by her own showing, and the fact that, if the abortion were really effected, she herself was a *particeps criminis*, the publicity and disgrace of the transaction might have been avoided on rather favourable terms. But Mr. Delves, on the contrary, immediately denies the truth of all the allegations, and declares that he will spare no trouble nor expense to vindicate his character; and on the 6th of July (the day when the accusation was made), Mr. Delves's solicitor tells the brother-in-law of the prosecutrix that, if the charge was true, he ought to prefer it at once; but, if it was untrue, then he ought to put Mr. Delves in the right position. The sequel was, that the girl signed a declaration, entirely exonerating Mr. Delves, on the 6th of July; was examined by Dr. John Charles Cook, of London, on the 5th of August; and preferred a charge of procuring abortion against Mr. Delves at the end of September! for an offence, be it remembered, said to have been committed on the 22nd of March!

We now come to the point of Medico-legal evidence which is involved in this case, and which is certainly well worthy of attentive consideration; and here the question narrows itself into the problems of the time required to effect a felonious miscarriage, and the symptoms likely to be produced upon the female. The statement of the latter, which we may observe is wholly unsupported by any corroborative evidence, is to the effect that she went upon at least two occasions to the house of Mr. Delves, who gave her *some liquid of a dark colour*, which produced insensibility; whether administered by the mouth as a liquid, or in vapour, is not stated.(a) On recovering, she observed indications of the operation having been performed, and that she was not in the same state as before. She was in the house rather less than two hours, and after the operation on this and a subsequent occasion, she walked home, half a mile, without, as it would appear, suffering much inconvenience.

In the evidence for the defence, Mr. Gorham and Mr. Trustram expressed a very strong opinion that the statement of the prosecutrix was incredible, because a felonious abortion could not be effected in the space of two hours, and because a woman, under such circumstances, would not be able to walk home immediately after the operation. In these opinions it is probable that the Profession will not generally coincide, for however *improbable* it may be that so dangerous an operation could be easily performed, there is certainly nothing *impossible* in the transaction. All Medical practitioners who have seen much of obstetrics will readily recal to mind many cases where women in all classes of society will walk considerable distances after an abortion, and even after being delivered of a child at the full time; and there is certainly nothing impossible in the supposition that an abortion might be completed in two hours. Such, in fact, has been the opinion expressed by several eminent authorities in obstetrics and forensic medicine to whom the question has been referred; and in addition to Sir Charles Locock, whose letter has been printed, Dr. Ramsbotham, Dr. Beatty of Dublin, Dr. Conquest, Dr. Alfred Taylor, and Dr. Barnes, have all been consulted since the trial, and have all admitted the possibility of the story told by the prosecutrix.

When we come to examine the probabilities of the case, we are beset by the same kind of difficulties which we before experienced in understanding some of the other details. The tale is that on a certain Sunday an operation, lasting two hours, was performed, and that the girl walked home immediately afterwards; but the proceedings *were subsequently repeated* in exactly the same manner, a second operation having been performed on the 22nd of March, 1857, when she was under treatment for an hour and a half, and walked home as before. Now, admitting the possibility of procuring an abortion in two hours, what was the necessity of performing other operations at a subsequent interval or intervals? Supposing that the abortion was effected (as we admit it might have been) on the first occasion, there was surely no pretext for procuring another abortion after the lapse of a week. But, on the other hand, if the first operation was only partially successful, and a number of subsequent operations were required to detach the contents of the uterus, then the whole theory of the abortion having been completed in two hours falls to the ground, and several weeks must have been occupied in effecting the crime. Supposing more than one opetion to have taken place, we can come to no other conclusion than that the process was a slow and difficult one; and the question then arises, whether a woman, with a partially detached ovum in her uterus, and suffering from the pain and hæmorrhage which such a condition must necessarily have produced, could walk about and pursue her ordinary avocations as servant at a beer-shop, as the girl in question appears to have done. It is true that all this is quite *possible*, but it is totally inconsistent with the assumption that the abortion was so skilfully performed as to occupy only two hours.

In case our observations shall fall into the hands of lay readers, we may at once express our strong disbelief that an abortion could be effected in the manner alleged; although, as we have before distinctly stated, we do not regard it as impossible. The premature and unnatural extraction of a fœtus, besides its criminality, is a work of considerable difficulty, and involves the exercise of some mechanical violence; and the woman is exposed to the greatest danger from the hæmorrhage and the exhaustion which such a nefarious proceeding is likely to produce.

In support of this opinion we quote the following emphatic remarks by Dr. Beck, in his admirable Elements of Medical Jurisprudence: Art. Infanticide:—"It results, therefore, from what has been said concerning the means of procuring abortion, 1. That all of them are *uncertain* in their operation upon the fœtus. 2. That they always endanger the life of the mother; and 3. That they sometimes destroy the mother without affecting the fœtus."

After the opinions we have expressed, it is, perhaps, almost needless to add the remark, that we do not credit the story told against Mr. Delves. There may, it is true, be circumstances of which we are as yet ignorant, and which

(a) It has subsequently been stated that it was administered by the mouth.

may throw some more light upon the case than we already possess; but with the evidence before us, it is far more easy to believe in that gentleman's entire innocence, than to reconcile the unsupported statement of the prosecutrix with any medical or physiological hypothesis.

The above article was founded upon a report of the proceedings published in a provincial Journal, and sent to us last week. It had been copied *verbatim* into the pages of a Medical contemporary. Since our article was in type, we have received another and a fuller account of the proceedings extracted from another Journal; and although the discrepancy of the dates is now in some measure explained, yet the whole story is as unintelligible and incredible as ever. According to the second account, the prosecutrix had an abortion every three or four months during the whole of the alleged connexion between Mr. Delves and herself. We have received numerous other communications on the evidence in this case; but the pressure upon our columns prevents us from pursuing the subject further this week.

THE WEEK.

An influential and important meeting of the Medical Profession ha sjust been held at Cork, for the purpose of sympathising with Dr. M'Carthy, under the mean and unjust treatment which he has lately experienced from the Kenmare Board of Guardians. We are happy to find that the paltry and oppressive conduct pursued towards that gentleman has excited the indignation of the Profession, not only in Ireland but throughout England; and what is still more gratifying is to be informed that 112 Medical men throughout Ireland have sent contributions towards a fund for presenting him with a testimonial, in admiration of the eloquent appeal which he made, although in vain, on behalf of himself and his ill-used brethren of the Poor-law service. Copies of the resolutions passed at a previous meeting on the same subject have, we are informed, been forwarded to the Marquis of Lansdowne and Lord Kenmare, but no answer has yet been received from those noblemen. We hope, however, that they will exert themselves to procure a reversal of the decision of the Board, and in the meantime that they will subscribe to the testimonial to Dr. M'Carthy. A great number of letters were read at the meeting, all expressing the warmest sympathy with the Irish Dispensary doctors; and among others was one including a subscription from Mr. Griffin, the great champion of Poor-law Medical Reform in this country. One enthusiastic subscriber recommended that Dr. M'Carthy should at once resign his situation, as no man, he thought, would be base enough to take it up under the circumstances; but a speaker at the meeting very properly and prudently remarked, that he could not join in such a recommendation, as it would be too much to suppose that among so numerous a Profession as our own *there should not be one scoundrel*. We fear that the "one scoundrel" exists sometimes in England as well as in Ireland, and that this is the true cause of the slow advance made in Poor-law Medical Reform. The meeting at Cork augurs well for the success of the cause.

A perfect "milk-fever" has just been raging in the ancient city of Carlisle, the inhabitants having been threatened with a rise in the price of milk. The common price of that very useful and necessary article has hitherto been two-pence a quart in Carlisle, and it is now proposed to advance it to three-pence, and the only reason assigned is, that as all other kinds of produce are fetching high prices, and the farmers are making rapid fortunes, therefore milk ought to be made dearer in equal proportion with the other necessaries of life. In face of so vigorous an opposition as has been evinced in the city of Carlisle against the innovation, it is not very likely that the farmers will gain their point; and we shall not be sorry if they are defeated. It is almost an axiom in political economy, that the price of an article is determined by the money which it will fetch; and we thus account for the fact, that inasmuch as the same necessary fluid which fetches two-pence a quart in Carlisle will fetch just double that sum in London, the price in the latter city is double of that in the former. The consumer, however, has the power of reducing the price by either abandoning the use of the article, or by combining with others in patronising only those vendors who offer it at a cheap rate. We must again express our surprise and regret that, notwithstanding a most abundant harvest, the price of all kinds of provisions should continue unreasonably high in this metropolis; and we can only account for the fact by our plethoric state of prosperity, which enables us to give any price which the dealers may demand. The claims of the poor, however, are never considered by the political economist; and for their sakes we could wish that the necessaries of life were cheaper, as a scarcity of provisions lays the most sure foundation for disease, and its attendant miseries.

The Ophthalmological Congress, which has just terminated its labours at Brussels, has been highly successful as a means of bringing together from all parts of Europe those interested in ophthalmic medicine and surgery. More than 200 were present at the opening of the session on the 13th, and a general feeling of harmony and good-will prevailed throughout the whole of the proceedings. To give a definite object to the deliberations of the Congress, its members were invited to group themselves into three Sections, each one forming, as it were, a special committee for examining certain questions previously prepared for their consideration, which, after having been adopted or amended, might be submitted to the Congress at its general sittings. The following questions were discussed in committee:—1. The mode in which purulent ophthalmia is transmitted. 2. The part performed in the process by the granulations. 3. The best plan of treatment; and 4. Prophylaxis. 5. The utility and results of the ophthalmoscope. 6. The accommodation of the eye to distances. 7. The existence or non-existence of specific forms of ophthalmia. 8. The curability of cataract without operation. 9. The utility of continued closure of the lids in various ocular affections. 10. The desirableness of special ophthalmic institutions. 11. Their general plan objects, and arrangements. In addition to the reports of the Sections on these questions, various papers were read by individual members of the Congress, chiefly on the state of ophthalmic science in the various countries they represented. Almost every nation of Europe had sent forth its delegates. From Germany came Ammon, Arlt, Græfe, E. Gæger, Stellway, Stromeyer; Donders from Holland; Warlomont, the indefatigable secretary-general to the Congress, headed a numerous body of his countrymen; while France contributed Guépin, Desmarres, Sichel, Stœber, Testelin, and a host of others. English ophthalmology was represented by Messrs. Bowman and Dixon from London, and Mr. Windsor from Manchester, Staff-Surgeon Roberts appearing on behalf of the Medical department of the army. M. Fallot presided over the assembly with dignity, and opened and closed the Congress with addresses full of eloquence and good feeling. It was not to be supposed that the votes of such an assembly could do much towards the settlement of disputed points in medicine or physiology; each practitioner must, after all, be guided by the results of his own experience and industry. It is something, however, to have brought together the widely dispersed

members of a Profession interested in a common object, and to have enabled them, by friendly interchange of opinion, to cultivate feelings of brotherhood and unity.

A case of death from strychnia has just occurred, under very painful and somewhat mysterious circumstances, in the Norfolk and Norwich Hospital, the matron of that establishment having died suddenly with the symptoms of irritant poisoning. The evidence adduced at the inquest proved that the unfortunate deceased was suddenly seized with tetanic spasms, under which she speedily sank. A post-mortem examination revealed no appearances of natural disease, but the history of the case poinnted to the influence of strychnia; and upon a chemical examination being made of the contents of the stomach by Dr. Ranking and Dr. Letheby, that poison was clearly detected. The death is supposed to have been suicidal, but the inquiry has not yet terminated; and it would, therefore, be premature to allude further to the case at present.

In the present condition of India and the increased demand for the services of Medical officers, it was to be hoped that the result of the late Royal Commission of Inquiry into the condition of the Army Medical department might have been to ameliorate the condition of the Medical officers so materially that a large number of highly qualified men would have been induced to enter the service. From what has transpired as to the recommendations made by the Commissioners there is little doubt that the position and status of Army Medical officers would have been greatly improved had those recommendations been adopted at the present crisis, and the great difficulty of meeting the actual demands now existing would have been obviated. Yet it is understood that the Report of the Commissioners will not appear before December, and it is said that the reason of this delay is the reluctance of Lord Panmure to carry out immediately the suggestions of the Commissioners as regards the increased pay and allowances to the officers of the Medical department. We can only say that if any Secretary-at-War, from narrow-minded parsimonious motives, withhold from our sick and wounded in the East, under the great hardships and dangers to which they are now exposed, a sufficient amount of Medical assistance, he entirely contradicts in action his own expressed opinions. We may add that it is as difficult to exaggerate the moral guilt the Government would incur, as it will be to curb the indignation of the country, should it appear that a want which might be supplied now is not supplied, and that this neglect should lead to a recurrence of Crimean disasters in India.

REVIEWS.

The Principles of Beauty. By J. A. Symonds, M.D., F.R.S.Ed. &c. Consulting Physician to the Bristol General Hospital. London: 1857. 8vo. Pp. 72; with Illustrations.

When the late Justice Talfourd was practising at the bar and became known as a poet and play writer, his practice immediately fell off, and he was obliged to devote himself with double assiduity to his labours in the law courts, to prove that he was not neglecting the interests of his clients by his mode of employing his hours of leisure. When Sir Charles Bell brought out any of his physiological discoveries, he immediately felt the effect in a falling off in the number of his patients and consultations, and he was obliged to counteract this effect by publishing some practical paper, or a Clinical Lecture or two in the *Medical Gazette*. And with a certain class of the Public, and of the Profession also, so it has been and will be. A man to be trusted as a practical man must be known as nothing else. It is high time that this error should be corrected, and the *many* taught what the *few* have long known, that a man who proves himself to be a man of ability by the manner in which he spends his leisure hours, is the man to be trusted in the practice of the Profession which he makes the serious business of his life. Nothing can tend more directly to remove an impression which certainly has an injurious effect upon the general social standing of the Profession than the production of works in the domain of general literature, science, or art, by Physicians or Surgeons eminently distinguished as practical men. On this ground especially we receive with extreme satisfaction Dr. Symonds's recent treatise on the Principles of Beauty. Known for many years past as a Physician in larger practice, perhaps, than any other out of the metropolis, Dr. Symonds is the very man to set forth as an example of the important principle, that a learned leisure and a busy Medical life are not incompatible.

We are not about to present our readers with any account of the contents of this work, or to follow the author in his endeavour to analyse Beauty into its elements, because we trust that very many of our readers will devote a leisure hour to its perusal; but we cannot refrain from quoting one passage, to give some idea of the intellectual treat Dr. Symonds has prepared for us. He has been supporting Mr. Hay's theory, that beautiful visible proportions bear a numerical expression analogous to that of the ratios which govern music,—in other words, "that a form is beautiful when the space which it incloses can be analysed into angles which bear proportions to each other analogous to those which subsist between the notes of music,"—and he goes on as follows:—

"The sensorium is so organized as to respond to the harmonies of sight and sound of the outer world in all men of normal constitution. But this faculty has different degrees of development in different individuals, and is susceptible of almost unlimited cultivation. That, however, which is most calculated to move our wonder and admiration is the mental constitution of men of native genius, whereby they unconsciously produce such harmonies of sight and sound, and embody them in outward objects.

"Very wonderful is it that the proportionate vibrations of the air, and the harmonic ratios of sculptured marble, should give so keen a sense of delight to the ear and the eye; but how much more wonderful that unconsciously in the brain of the man of genius, in the mysterious molecular actions of the ultimate vesicles of the nervous tissue, there should be evolved, without any outward agencies, those ratios of space and time which, working on the nerves and muscles of voice and hand, make themselves heard and seen in far-off lands, and far-off times, filling the world to its remotest bounds with forms of beauty and tones of melody that never die;—miraculously preserved in tombs of Thebes; buried, but disinterred, in palaces of Nineveh; lingering among the oleanders of Lycia; shining, though not with 'original brightness,' on the Acropolis of Athens; and thrilling through the vaults of cathedrals; requiems of Mozart, demi-gods of Phidias, sybils of Michael Angelo, Madonnas of Raphael, heavenly cadences of Milton;—all answerings of the internal great ideas, emanations from those inaccessible cells where the vital force, with an inspiration and energy past man's understanding, plies her mysterious work! Thence issuing, these wonders of form and sound are caught by the ears and eyes of other men, pressed to their hearts, shrined with their gods, mingled with the blessed sanctities of their homes, and handed down to distant ages, so that the thought and feeling of one mind may become the beauty and the joy of all men for ever."—P. 55.

GENERAL CORRESPONDENCE.

MODE OF ADMINISTERING CHLOROFORM.

[To the Editor of the Medical Times and Gazette.]

Sir,—The subject of anæsthetics attracting much attention at present, induces me to send you a few lines on the administering of chloroform, as I find my manner of giving it frequently calls forth remarks from lookers-on. Before ever giving it myself, I paid some attention to the ways of using it at different schools I visited here and abroad. I

always use a piece of lint folded, and a towel, making a rough cup of the latter. I saturate the lint well, and apply it pretty closely at first, aiming at getting anæsthesia as quickly as possible; once obtained I am contented with keeping the patient barely insensible, withdrawing the chloroform more or less as seems requisite, keeping my eye on the patient, not on my hand, just as one aiming at a mark fixes his eye on the object aimed at, not at the missile in his hand.

My reasoning is—Asphyxia is not caused instantaneously; stopping the mouth and nostrils for a few seconds causes great distress, but remove the impediment, and the patient soon recovers; but the case is more troublesome if one is rendered insensible by slow asphyxia, as by respiring air partially deprived of oxygen, the blood having time to get poisoned; so in giving chloroform, a strong dose at first is certainly very disagreeable, but speedily produces insensibility, which a very small quantity mixed with common air is sufficient to continue: thus anæsthesia is produced; but the supply of oxygen is only cut off for a very short time. I attach, of course, much importance to keeping the whole attention to the effects of the agent. Once insensibility produced, almost withdrawing the chloroform, the giver should watch for the first sign of returning consciousness, and bring the anæsthetic close again, and one or two inspirations are generally enough, as the patient does not now resist it as at first.

I have given it to all ages, from a few weeks to 80 or 90, and may mention a case of disease of the heart, on which I made a post-mortem a few weeks later; the heart was fatty, and so soft that it gave way almost like brain substance; in this case the pulse was imperceptible a few days before death. Few take chloroform better than this man did, though the exhibition was rather prolonged, owing to a difficulty in tying some vessels after the amputation for which the chloroform was given. I do not advise chloroform in such cases, and only mention the case to show that chloroform may sometimes be given without producing any apparent ill effects, certainly none at the time, even in advanced heart disease. I should not have troubled you with these remarks, but I have had my manner of giving it so frequently commented on that I suppose it is not common. A House-Surgeon in several Hospitals, I have given chloroform pretty frequently, and never yet had even a threatening case: may I never have! I have, however, seen such more than once, and never wish to see another.

I am, &c.

C. Inglis, House-Surgeon, Taunton Hospital.

September 26, 1857.

ARREST OF DEVELOPMENT IN UTERO.

[To the Editor of the Medical Times and Gazette.]

Sir,—Will you kindly allow me space for a few lines to thank Dr. West for his reference to M. St. Hilaire's most interesting work, and also Mr. Bateman for his case published in your Number of the 19th inst. I quite agree with Dr. West as to the cause of the deformities in the extremities alluded to briefly in the second case reported in my letter of August. I simply asked a question on the subject, in the hope of getting an answer corroborative of my own previously entertained opinion; and, as regards mental impressions on the part of the mother, I trust Dr. West does not consider me "a believer" in them; for I am very much opposed to a notion which appears to me a most absurd one. Still I know it to be entertained by some authors of no small reputation; and I hoped, by throwing out the hint, to elicit some discussion on the point.

I am applying an elastic band to the feet of the child whose deformities I reported, and I think with every chance of benefit. I was trying the same to the hands; but it makes the child so restless, I have for the present suspended it.

I am, etc. Robert Oke Clark.

Farnham, September, 1857.

SERIOUS CHARGE AGAINST A SURGEON.

At the Town-hall, Tunbridge, on Thursday last, before Major Scoones (in the chair), A. Pott, Ford Wilson, and D. Salomons, Esqrs., Mr. Joseph Delves, who for some years past has practised as a surgeon in that town, was charged with having used a certain instrument for the purpose of procuring the abortion of a young woman named Ellen Cook, living at the same place.

Mr. Sleigh, in opening the case, said he did not know that ever a more painful duty was imposed on him than on the present occasion, seeing that he had to support against a gentleman of education, and a member of a liberal profession—a charge of one of the gravest offences known to our criminal law. He was quite sure all would agree with him that the importance of this investigation could not be overrated, whether as regarded the individual who stood in the position of defendant, on the one hand, or the young woman whom he should call before them as the prosecutrix, on the other. The information charged the defendant with having used a "certain instrument," but was laid under the 7th William IV., and 1st Victoria, chap. 85, sec. 6, which enacted that any person attempting, by "any means whatsoever," to procure the miscarriage of a woman, was guilty of a transportable offence. Mr. Sleigh then proceeded minutely to detail the circumstances of the case, as alleged on the part of the prosecution, and afterwards observed that it was probable his friend Mr. Bodkin would contend that the prosecutrix herself was an accomplice in the felony, if any had been committed, and that therefore her evidence, unless strongly corroborated on material points, was not entitled to be acted upon. He (Mr. Sleigh,) however, did not believe that the bench would consent to place a girl who—after being brought to sorrow and shame—through fear of exposure (knowing that it would cause her to be discarded by her friends,) submitted to such an operation, in the category of an accomplice; and although it could not be expected that the girl would have very ample means of corroboration at her command, seeing that a person in defendant's station would naturally take care to place any proof of his guilt without the pale of possibility, still the evidence of the brother-in-law and sister (with whom she was residing) as to the state of her health at the time the offence was alleged to have been committed, would be found strongly corroborative of the truth of her statement. Should it, however, be made manifest during the investigation that day, that this was entirely a trumped-up story on the part of the girl, no person would be more glad to see the defendant exculpated from the charge than himself (Mr. Sleigh); but before the magistrates could arrive at any such conclusion, they must be satisfied that the girl had been guilty of more gross and cruel perjury than had ever been before committed, because, without motive, she had sought to blast the reputation of a man against whom she could have had no feelings of enmity.

The prosecutrix, a neatly-dressed young woman, of average personal attractions, was then called, and deposed, in effect, that she was nineteen years of age last August, and had resided with her brother-in-law and sister, who keep the Brewer's Arms, Tunbridge, for the last four or five years. She first met Mr. Delves on the afternoon of the first Sunday in August, 1855, near the Postern. She had never known or spoken to him before. He requested her to go for a walk with him, and she did so. After being out about half an hour, he wanted her to go to his house, but she did not do so then. She, however, went there, by appointment, on the following Thursday, between seven and eight o'clock in the evening. Defendant himself opened the door for her, and she was shown into a sitting-room on the ground floor; there was a sofa in that room. From that time to the following Christmas, she continued her visits to the house at different intervals, by appointment. During the time Mr. Delves made constant inquiries of her, with a view of ascertaining whether there were any signs of pregnancy, and finding such to be the case, he gave her medicine; she believed he did so about three times. At Christmas she went home to see her father and mother, who lived near Maidstone, and defendant gave her some medicine to take with her. It, however, did not produce the usual effect, and on her return she communicated this to Mr. Delves. She continued taking the medicine, without any result, until February. In April, from her appearance, she told Mr. Delves she thought she was pregnant, and he then examined her and said such was the case. He also said he could destroy it by using an instrument, if she would consent, and she did consent. She saw him again on the next Sunday, and it was then arranged that the operation should be made on the Sunday following. She accordingly went to the house, soon after three o'clock in the afternoon, when, having made certain preparations, defendant

gave her some liquid of a dark colour, which produced insensibility. On recovering she observed indications of the operation having been made, and she was not in the same state as before. She left about five o'clock, and walked to her home. After this the proceedings were repeated in exactly the same manner, the second operation being performed on Sunday, the 22nd of March, 1857, she being at defendant's house (which was not the same as on the first occasion, he having removed to Bordyke,) about an hour and a half that time. Her health, subsequently to this operation, was so bad as to attract the attention of her brother-in-law, and he inquired of her the cause, when she made a statement to him, in consequence of which, some weeks afterwards, he took her up to Mr. Delves, but the latter refused to see her. That was on Sunday, the 5th July. Next day her sister took her to Dr. Walker's, and requested him to examine her, but he declined, as also did Dr. Parker. (Mr. Sleigh was here proceeding to interrogate the prosecutrix as to the reason Dr. Walker gave for not examining her, when Mr. Bodkin objected to the question, and it was not pressed.) After that Dr. Cook came from London and examined her.

Cross-examined—Was servant at the beer-shop, and did the general work of the house. Her nephew, who is 13 or 14 years old, slept in a separate bed in the same room with her. The reason she did not go to Mr. Delves's when she first met him was because she had no time. The sofa in the sitting-room stood near the window, and had a hair covering. Previous to their going to Mr. Delves's, on the 5th July, her brother-in-law told her that he had received the letter produced from Mr. Delves; she could not read it herself. (Mr. Bodkin was about to read the letter, but Mr. Sleigh objected; it consequently was not read.) On the 6th July she again went to Mr. Delves's, and he asked her if she had come to sign a paper. She replied that she had. He said he must have an entire withdrawal of the lies she had been setting about him. She said she did not know what to write, but, at his dictation, she wrote the declaration produced, which was witnessed by his servant. (This declaration was as follows:—"I declare that the accusation I so wickedly made to my sister's husband, that I was in the family-way by Mr. Delves, and all other statements I have made concerning him, are entirely false.—Ellen Cook, July 6th, 1857. Witness, Maria Soane Sands.") Dr. Walker came to their house the day after she and her sister had been to him. She believed it was Dr. Walker who brought Dr. Cook down from London. Expected to have to pay the expenses of the prosecution herself, but Dr. Walker brought her solicitor there. Never saw any other person but defendant at his house, except on two occasions, when she saw his present servant, who opened the door to her. Had a writ for defamation of character served on her at the suit of Mr. Delves, about four weeks ago. Had seen Dr. Walker several times on this business. Remembered coming to the magistrates with the superintendant of police; they did not then ask her whether she wished to proceed.

By Mr. Sleigh—The superintendent came to her and said the magistrates wished to see her on the matter. That was before she had been examined by any Medical man. Previous to signing the declaration her brother-in-law had told her Mr. Delves had said that if she did not deny all that she had stated, he would prosecute and transport her; and Dr. Walker had also told her Mr. Delves could proceed against her if she could not support the charge. She consequently signed the paper, because she feared, having no witnesses, that Mr. Delves would "overthrow" her.

Richard Russell, brother-in-law to the prosecutrix, deposed that in the spring of the present year the latter was so unwell as to give him much uneasiness, and he at length succeeded in obtaining a statement from her as to the cause. On the 3rd July he saw Mr. Delves, and told him the girl said she had been pregnant by him, and that he had used means to destroy the child. Mr. Delves denied the charge, but asked him to walk down to the railway station with him. He, however, had not time to do so. Later in the same day he received a letter from Mr. Delves, in consequence of which he took the girl up on the next Sunday, but Mr. Delves sent for him into the sitting-room alone, and would not see her. He had previously demanded a declaration to the effect that all she had stated was false. As they were passing out of the house, Mr. Delves saw the girl, and said, "I have not seen you for eighteen months." She replied that he had. He then said, "If you don't send this paper up, signed, I will have you taken up before six o'clock." Witness said, "If that's the case, I'll take her to another Medical man." Defendant replied "Another Medical man has nothing to do with it," and added that if witness was saucy, he would have him taken up too. They then came away. Witness never said anything to Mr. Delves to the effect that it would be well for him to hush the matter up. On the evening of the 6th July, Mr. Cripps called on witness, and, referring to the charge, asked him if he had any money to lose. He replied that he had not. Mr. Cripps said, in effect, that it would be better for the matter to be made up in some way.

Cross-examined—The girl went up to sign the paper after Mr. Cripps had called; she made use of words to the effect that she was going to "settle it." On his oath witness never said anything about hushing the matter up. Did not know by whom the solicitor for the prosecution was engaged, nor who would pay the expenses. Dr. Walker had not told him that he had been served with a writ as well as the girl. Had not talked to Dr. Walker on the subject, but the latter had remarked to him that it was a very serious job.

Mrs. Emily Russell, wife of the last witness, gave similar evidence as to the ill-health of her sister in the spring of 1856, in consequence of which she consulted Mr. Delves (who was then attending her husband), and he prescribed for her. On several occasions during that year she noticed that her sister was very poorly, and unable to get about; and in March and April of the present year her state of health was such as to induce witness and her husband to speak to her upon the subject. Remembered her being away on the afternoon of Sunday, the 22nd of March, from three to five o'clock, and when she came home she appeared very poorly, and went to bed directly after ten. On the occasion of Mr. Cripps coming to the house, he remarked that the matter had better be made up, as Mr. Delves declared that he had not seen the girl for eighteen months, and swore positively that he would "follow the law" on her; that Mr. Delves had seen his friends, and £500 was nothing to them. On being informed that no other Medical man had seen the girl, Mr. Delves said it was only right that one should examine her. The same evening witness took the girl to Dr. Walker; he declined to make the examination, as also did Dr. Parker.

Dr. John Charles Cook, of London, said he had had very considerable experience in midwifery, as an accoucheur. On the 5th August last he was called to Tunbridge to examine the prosecutrix. She had undoubtedly been pregnant, for probably a period of four or five months. There were appearances not usually attendant upon a natural miscarriage, but consistent with the fact of instruments having been used, by a skilful hand; though the lapse of time was so great as to render it impossible to form any decided opinion as to the mode by which the extraction had been made. There were various narcotics which in solution would present a dark colour, and have the effect of producing temporary insensibility. There was nothing inconsistent in the fact of such an operation as that in question having taken place, and the circumstance of the person having walked a moderate distance home; and though she would suffer from weakness and exhaustion next day, it did not follow that she would be unable to go about her work.

Mr. Sleigh—Have you yourself formed an opinion as to whether or not instruments had been used?

Dr. Cook—I should say they had been, but that is a mere matter of opinion.

Cross-examined—Was a member of the Royal College of Surgeons of Edinburgh, but had retired from active practice. The last case of midwifery he had was about twelve months since. Dr. Walker, who was a friend of his, had requested him to come down, and was partially to remunerate him for his loss of time.

Re-examined—Was now a private teacher of medical practice in London, and had been at the head of a hospital in Red Lion-square.

This being the case for the prosecution,

Mr. Bodkin proceeded to address the Bench on behalf of the defendant. After remarking on the grave nature of the charge, and observing that he believed he should be able fully to satisfy the justices that it could not gain credit at the hands of any reasonable man, he observed that his learned friend, in his opening speech, was unable to avoid alluding to the fact that, had they pleased, they might have stopped the case on

the very threshold, because it was one of the first principles of the English law that a person could not be convicted on the evidence of an accomplice, unless that accomplice was corroborated in some material points respecting the particular person charged; and notwithstanding the very elaborate argument of his friend, in attempting to prove that the young woman who had appeared before them could not be looked upon in the light of an accomplice, was there, he would ask (assuming, for the sake of argument, that her story was true,) the shadow of a doubt upon that point, after her statement that the object of this alleged operation was explained to her, that she was asked whether she would consent to its being made, and that she did so consent on both occasions? His client, however, had disdained to take advantage of any technical objection, knowing the importance to his character of a full and fair inquiry into this matter. The story so unblushingly told by the girl was wholly incredible, and irreeoncileable with the ordinary events of life, and he was instructed by Mr. Delves that it was a tissue of falsehoods from beginning to end. Could it for one moment be conceived that a man whose very existence depended on his moral character would have been seen walking in broad daylight with a girl whom he had never seen to his knowledge before—that he would have invited her to his home—and then carried on the proeeedings she had detailed? Was it also to be supposed that all this could have occurred without some corroboration being obtained as to the girl being seen in company with the defendant, or near the house in which he resided? or, again, without some appearances which would have led to the discovery of what had taken place by those with whom she resided? Then, had defendant been a guilty man, would he not have sacrifieed everything he possessed to have settled the matter, and thereby put a stop to further inquiry? instead of whieh he immediately wrote, demanding a full retractation of the scandalous attack which had been made upon his character; and the prosecutrix then signed the declaration which had been produced before them. In continuation Mr. Bodkin remarked upon the utter prostration which must take place in the defendant's practice, if the case was sent for trial, and stated the nature of the evidence he should adduce for the defence, which, combined with the high character of the defendant, and the general incredibility of the girl's story, would, he was convinced, satisfy the Bench that he was wholly free from the charge imputed to him, and that it was their duty therefore to dismiss the case.

Mr. W. C. Cripps was then called, and stated that he was consulted in this matter by Mr. Delves on the 6th July. He saw Russell (prosecutrix's brother-in-law,) on the same day, and then heard from him, for the first time, that the girl alleged Mr. Delves had given her something to destroy the child. He told Russell that Mr. Delves's friends believed him to be entirely innocent of the charge, and would spare no trouble or expense to vindicate his character. Russell replied that he was sorry he had had anything to do with the matter, as he had got no money to lose. Witness told him that if the charge was true he ought to prefer it at once, but if untrue then it was his duty to take the best means he could for putting Mr. Delves in his right position. The word "instrument" was never made use of during the conversation. Finding the girl had not been examined by any Medical man, witness said they had better proeeed to have one that evening.

Maria Soane Sands said she had been in the service of Mr. Delves twelve months on the 27th of last June. In the house where her master formerly resided there was a sitting-room on the right-hand side of the front door. There was no sofa in that room. Never saw the prosecutrix at Mr. Delves's until the 6th July, when she wrote the paper. After it had been signed, Mr. Delves said, "Turn her out," and speaking to prosecutrix, he said, "Mind I hear no more of this, or else I shall take proceedings."

Cross-examined by Mr. Sleigh—Mr. Delves is a single man. In the drawing-room at the former house there were two sofas; the sitting-room was on the right, the surgery on the left, and the drawing-room opposite the front door, one passage leading to all three apartments. (It was afterwards elicited that there was a door communicating between the sitting and drawing-rooms, but Mr. Bodkin said that had been opened since.)

Re-examined—The sofas were covered with blue merino.

Mr. Gorham, Surgeon, Tunbridge, as a Practitioner of between eighteen and twenty years' standing, gave it as his opinion that it was just possible a person would be able to walk from Mr. Delves's to the prosecutrix's brother-in-law's, after undergoing such an operation as that described; but such cases were exceedingly uncommon, and the taking of a narcotic would increase the difficulty of walking; indeed, the effect of a narcotic, sufficient to produce insensibility to the pain of the operation would last some hours. It would also take some considerable time before the purpose of such an operation could be attained.

By the Bench.—Witness believed it was utterly impossible that it eould be attained within the time specified in this ease.

Mr. C. Trustram, Surgeon, of Tunbridge-wells, after twenty-five years' experience, fully coincided with the opinion last expressed by Mr. Gorham. The earliest time on record, from the first symptoms, was ten hours, the average period being forty-eight hours; in fact, the impossibility of separation occurring in less than ten hours was so great that it had not been treated on in any work of Medical Jurisprudence. No narcotic given in a sufficient dose to produce insensibility to pain under such an operation as that in question would allow of a person waking up well in two hours. Mr. Trustram also entered into other details, in opposition to the testimony of Dr. Cook.

Dr. Cook was recalled, and said he considered the opinion given by the last two witnesses, as to the length of time necessarily required in such cases, was nonsense; but he was unable to refer to any case in which less than ten hours had elapsed. The pain of such an operation might rouse a person from the effect of any nareotic she had taken, so as to enable her to walk home.

Mr. Sleigh then replied, contending that the prosecutrix's statement remained uncontradicted, seeing that the witness Sands was not in the service of Mr. Delves at the time she (Cook) first went there, and that a *primâ facie* case having been made out against the defendant, it was the bounden duty of the magistrates to send it before a higher tribunal.

The magistrates then retired to eonsult, and on their return, after about ten minutes' absence, the Chairman said they had decided upon dismissing the case, considering the evidenee of the proseeutrix not sufficiently eorroborated.

LONDON UNIVERSITY.

M.B.—FIRST EXAMINATION, 1857.

Examination for Honours.

ANATOMY AND PHYSIOLOGY.

Kempster, F. H. (Exhibition and Gold Medal)	University College.
Crowfoot, William Miller (Gold Medal)	St. Bartholomew's Hosp.
Ringer, Sydney	University College.
Moxon, Walter	Guy's Hospital.
Harley, John	King's College.
Durham, Arthur Edward	Guy's Hospital.
Carter, Robert } equal	University College.
Cayley, William } equal	King's College.

CHEMISTRY.

Kempster, F. H. (Exhibition and Gold Medal)	University College.
Moxon, Walter (Gold Medal)	Guy's Hospital.
Durham, Arthur Edward	Guy's Hospital.
Rivington, Walter	London Hospital.
Harley, John	King's College.

MATERIA MEDICA AND PHARMACEUTICAL CHEMISTRY.

Moxon, Walter (Exhibition and Gold Medal)	Guy's Hospital.
Rivington, Walter (Gold Medal)	London Hospital.
Durham, Arthur Edward	Guy's Hospital.
Harley, John	King's College.
Kempster, Felix Henry	University College.
Adams, Samuel Hoppus	University College.
Pile, William	University College.

STRUCTURAL AND PHYSIOLOGICAL BOTANY.

Adams, Samuel Hoppus (Gold Medal)	University College.
Crowfoot, Wm. Miller } equal	St. Bartholomew's Hosp.
Harley, John } equal	King's College.
Durham, Arthur Edward	Guy's Hospital.
Thompson, Edmund Symes	King's College.
Jeffcoat, James Henry	St. Mary's Hospital.

MEDICAL NEWS.

APOTHECARIES' HALL.—Names of gentlemen who passed their examination in the Science and Practice of Medicine, and received Certificates to Practise, on Sept. 17, 1857 :—

BUTTERFIELD, HARRIS.
HUNT, ALFRED.
SMYTH, DAVID, Brighouse, Yorks.

Also, on September 24,

BAKER, THOMAS STEPHEN, Moreton-in-Marsh.
ELLIS, JAMES, Landport, Portsea.
FLEISCHMAN, ALFRED, Leeds, Yorks.
JOHNSON, BURDETT, Somersham, Hants.
MASON, THOMAS, Leominster, Hereford.
NORTON, SELBY, West Malling, Kent.
PRYTHERCK, JOHN, Llanerchymedd, Anglesea.
SICCAMA, RINSO ROBERT, Royal Navy.
TURNEY, THOMAS HENRY, Halifax, Yorks.
WILLIAMS, WILLIAM RUMSEY, Carnarvon, N. W.

DEATHS.

ANDERTON.—On the 29th inst., in his 45th year, Charles Anderton, M.R.C.S. Eng., 1835, of Stalybridge.

BRADSHAW.—On the 18th inst., aged 50, Henry Bradshaw, M.R.C.S. Eng., 1829 ; L.S.A., 1828, of Liverpool.

DRAYTON.—On Saturday, the 19th inst., at his residence, Ball's-pond-road, Islington, George Box Drayton, Esq., Surgeon, formerly of Gloucester, in his 74th year.

GORDON.—On the 16th inst., at Castledawson, Robert Gordon, M.D.

HAY.—On the 31st May, at Bareilly, John Macdowall Hay, M.D.

HOME.—On the 28th September, at York, George Home, Esq., Staff-Surgeon.

JUKES.—On the 12th September, aged 61 years, Frederick Jukes, M.R.C.S. Eng., 1819 ; L.S.A., 1820, of Birmingham.

LOMAS.—At his residence, Bridge-street, Belper, on Thursday evening, the 10th inst., after a long and painful illness, Thomas Lomas, L.S.A., 1827, aged 54 years, universally esteemed and deeply regretted.

OGLE.—After a few days' illness, and while on a visit to his son-in-law at Shoreham, Sussex, in the 65th year of his age, James Adey Ogle, M.D., Oxford, 1820 ; F.R.C.P. Lond., 1821 ; F.R.S. ; Regius Professor of Medicine, Aldrichan, and Clinical Professor of Medicine in Oxford University.

SEMPLE.—On the 26th inst., at his residence, 38, Upper-street, Islington, William Semple, M.R.C.S. Eng., 1827 ; L.S.A., 1818.

APPOINTMENT.

ROYAL MATERNITY CHARITY. — At a meeting of Governors of this Charity, held at the London Tavern on the 28th ultimo, Dr. Barnes, of Devonshire-square, was unanimously elected Physician for the Eastern division.

THE QUEEN'S COLLEGE, BIRMINGHAM.—The following awards of the prizes in the Medical Department have been declared :—

The Warneford Medical Scholarships.—Ten pounds each, to be held for two years, to be conferred upon Students "who have resided in the College at least twelve months, who have been distinguished for their good conduct and diligence, and who have been regular in their attendance on Divine Service in the College Chapel."—Harris, Reading, and Abbey, Wellingborough.

The Warneford Gold Medal, value twenty pounds, for an essay on an anatomical, physiological, or pathological subject, to be handled in a practical or professional manner, and according to those evidences of facts and phenomena which Anatomy, Physiology, and Pathology so abundantly supply ; but always and especially with a view to exemplify or set forth, by instance or example, "the wisdom, power, and goodness of God," as revealed and declared in Holy Writ. Subject : "The Anatomy and Physiology of the Kidney."—Mould, Tutbury.

The Principal Booth's Prize, ten guineas annually (books), to be adjudged to the best Clinical, Medical, and Surgical student alternately in the College by the majority of the Hospital Physicians and Surgeons.—Æquales, Mould, Tutbury, and Wilders, Birmingham.

The Baron Webster, Esq.'s Prize, five guineas (books), annually, for proficiency in the French language.—Holland.

The Clay Prize, five guineas annually (books), for Prize Essay. Subject : "The Anatomy, Physiology, and Pathology of the Placenta."—Lloyd, Birmingham.

Anatomy—Bracey, First Medal ; Dunn, Honorary Certificate. Physiology (Senior Class) — Mould, First Medal ; Bracey, Honorary Certificate. Physiology (Junior Class), Lloyd, First Medal ; Herbert, Honorary Certificate. Practical Anatomy—Dunn, Books ; Bracey, Certificate. Chemistry —Mould, First Medal ; Bracey, Certificate. Materia Medica —Herbert, First Medal ; Lloyd, Certificate. Medicine—Wilders, First Medal ; Mould, Certificate. Surgery—Mould, First Medal ; Jordan, Certificate. Forensic Medicine—Wilders, First Medal ; Mould, Certificate. Midwifery—Mould, First Medal ; Lloyd, Certificate. Botany—Cornbill, First Medal ; White, Certificate. Heslop Stethoscopic Prize —Wilders, Books ; Mould, Medal. Clinical Prize—Wilders, Certificate.

PROPOSED JUNIOR MEDICAL SOCIETY OF LONDON.—At a preliminary meeting lately held at the house of Mr. Ernest Hart, on the proposal of establishing a Junior Medical Society of London, the following resolutions were agreed to :—"I. That it is highly desirable to institute a Junior Medical Society of London, as a means of promoting an intellectual and personal fellowship among the Students of the various Metropolitan Schools, now devoid of any medium of friendly communication. II. That the objects of the Society should be :—1. To obtain papers from its members, explaining the opinions and practice in vogue at the various Hospitals, and treating of all other appropriate subjects in the domains of Medicine, Surgery, and the allied Sciences. 2. To examine and discuss pathological specimens exhibited by the members. 3. By affording facilities for the professional association of Students from the various schools, to increase their mutual acquaintance, and to encourage a feeling of sympathy and union in their general body. III. That in addition to all Students in Medicine, Curators, Demonstrators, Registrars, and other officers of Metropolitan Hospitals, and Practitioners in Medicine and Surgery of not more than years' standing, should be invited to join the Society. IV. That as a preliminary to the establishment of the Society, the support of the Senior Members of the Profession and the Medical Press be asked, and suggestions obtained from them : and that the House Surgeons of the various Hospitals shall then be requested to call meetings of the Students of their Hospitals, at which the subject may be considered, and delegates appointed to confer at a future day. V. That Mr. Ernest Hart be requested to act as Honorary Secretary, and to take such further preliminary steps as may be thought desirable to promote the object in view."

VITAL STATISTICS OF LONDON.

Week ending Saturday, September 26, 1857.

BIRTHS.

Births of Boys, 886 ; Girls, 820 ; Total, 1706.
Average of 10 corresponding weeks, 1847-56, 1524.

DEATHS IN SUB-DISTRICTS FROM EPIDEMICS.

	Population. 1851.	Measles.	Scarlatina	Hooping-Cough.	Diarrhœa.	Cholera.	Typhus.
West	376,427	2	7	4	14	2	6
North....	490,396	8	8	5	14	..	5
Central ..	393,256	4	6	..	11	..	11
East	485,522	4	8	9	22	..	14
South	616,635	3	5	6	22	1	16
Total..	2,362,236	21	34	24	83	3	52

DEATHS.

	Males.	Females.	Total.
Deaths during the week	505	497	1002
Average of the ten years 1847-56	..	..	1239
Average corrected to increased population	...	..	1363
Corrected average for corresponding week in ten years 1847-56	637·0	601·7	1238·7
Deaths of people above 90	0	5	5
Deaths in 13 General Hospitals	21	25	46

DEATHS REGISTERED DURING THE WEEK.

Causes of Death.	In the Week ending Saturday, Sep. 26, 1857. Deaths of Persons. AT ALL AGES.	Under 20 Years of Age.	At 20 and under 40 Years of Age.	At 40 and under 60 Years of Age.	At 60 and under 80 Years of Age.	At 80 Years of Age and Upwards.	Averages of Temperature and Deaths in 10 Weeks.
Mean Temperature	Mean temp. 59°·1						55°·5
All Causes	1002	521	152	140	153	30	1238·7
Specified Causes	996	521	152	140	153	30	1229·7
Diseases:—							
1. Zymotic Class	248	194	25	13	14	2	421·3
2. Dropsy, Cancer, and others of uncertain seat	43	5	4	15	15	4	43·9
3. Tubercular Class	207	79	75	40	13	..	174·0
4 Of Brain, Nerves, etc. ..	93	44	12	16	18	3	117·2
5. Of Heart, etc.	28	..	7	8	10	3	40·5
6. Of Respiratory Organs ..	94	52	5	13	23	1	115·5
7. Of Digestive Organs ..	63	25	8	15	13	2	61·7
8. Of Kidneys, etc.	11	..	1	4	5	1	11·7
9. Of Uterus; viz. — Puerperal Disease, etc. ..	7	..	1	5	1	..	9·5
10. Of Joints, Bones; viz.— Rheumatism, etc. ..	5	1	1	3	..	..	8·1
11. Of Skin, etc.	4	3	..	1	..	..	2·0
12. Malformations	1	1	..	..	..	..	3·1
13. Debility from Premature Birth, etc.	33	33	..	..	..	..	29·1
14. Atrophy	49	36	1	1	11	..	35·3
15. Age	40	..	..	..	27	13	39·1
16. Sudden	11	7	2	1	1	..	26·4
17. Violence, Privation, etc. ...	59	41	10	5	2	1	91·3
Causes not specified.. ..	6	..	..	..	..	..	9·0

METEOROLOGY.

From Observations at the Greenwich Observatory.

Mean height of barometer	29·935 in.
Mean temperature	59·1
Highest point of thermometer	73·6
Lowest point of thermometer	41·5
Mean dew-point temperature	53·4
General direction of wind	Variable.
Whole amount of rain in the week	0·46
Amount of horizontal movement of air in the week ...	300 miles.

BOOKS RECEIVED.

England and France before Sebastopol, looked at from a Medical point of view. By Dr. Charles Bryce. London. Churchill. 1857.

Observations on the Human Crania contained in the Museum of the Army Medical Department, Fort Pitt, Chatham. By George Wilson, M.D. Dublin. 1857.

General Report of the Sanitary State of Clerkenwell in 1856. By J W. Griffith, M.D., F.L.S. London. 1857.

Catalogue of the Collection of Animal Products exhibited in the South Kensington Museum.

The Metropolitan Local Management Directory and Builders' Guide for 1857.

The North American Medico-Chirurgical Review, September, 1857. Philadelphia.

British and Foreign Medico-Chirurgical Review, October, 1857.

The Journal of Psychological Medicine, October, 1857.

Proceedings of the Royal Society, Vol. VIII. No. 27.

TO CORRESPONDENTS.

A Constant Reader.—In order to obtain the degree of M.D. from Lambeth it is necessary to possess some influence with the Archbishop of Canterbury, and to pay certain fees. These degrees are mere relics of antiquity, and the sooner they are discontinued the better.

Students.—The particulars of the Lectures to be attended by candidates for the appointment of Assistant-Surgeons in the Army will be found in our Students' Number. The extra Lectures to be attended are on Natural Philosophy and Logic; and in addition to possessing a diploma in Surgery, the Candidate must pass an examination before the Army Medical Board. Those who desire to become Assistant-Surgeons in the Army should address Dr. Smith, the Director of the Army Medical Board, Whitehall-yard.

J. C., Guy's Hospital.—An Assistant-Surgeon, having procured his outfit, may live upon his pay if he exercise moderate economy; but if he indulge in expensive habits, he will find the emoluments decidedly insufficient.

C.G., of M.—We know nothing of the party alluded to, beyond what has appeared in this Journal at various periods. His treatment we believe to be harmless, but we should decidedly not advise you to consult him.

M.R.C.S., Eng.—We believe about £80.

A Subscriber.—The list will be found in our columns of this day. It was published only on Saturday last.

Inquisitor.—We are not aware that any particular classification is received or adopted at the examination alluded to. The principal systems of Botany are those of Linnæus and Jussieu; the latter having been modified by Decandolle, Lindley, and others. It is rather hard to expect us to answer such a question as this second one, for the information might have been obtained in any elementary work on Botany.

Chemical Inquirer.—Fownes's Chemistry, edited by Dr. Bence Jones and Dr. Hofmann, contains all the information you require.

Public Water Closets.

TO THE EDITOR OF THE MEDICAL TIMES AND GAZETTE.

Sir,—There is a great and indispensable want felt in London, to which I take the liberty of directing your attention,—I mean the establishment of public Cabinets or convenient places through town. The Urinaries which have recently been constructed do not supply that want; and what a foolish oversight it was to construct one without the other! One disgusting consequence is, that the Urinaries are soiled at present as they would not be if there were Cabinets attached.

We talk much of "English comforts," but what a contrast there is in this particular respect between the London and the French metropolis! There, these necessary places abound in almost every street and thoroughfare, and the Physicians are fully alive to their importance in regard to the public health. But here one may traverse vast parks, and endless squares and streets, without once seeing the sign so familiar in Paris, "Cabinets d'Aisances," English, "Water Closets."

This omission is certainly thoroughly disgraceful to a "civilized people," as we profess to be.

I am, &c.

Regent's-park, September 16, 1857. W. N. N.

Errata.—In Dr. Elliotson's article, September 19, page 290, column 2, line 3 from bottom, for *voice*, read *taste;* page 291, column 1, line 46 from top, for *bathe*, read *bath;* page 291, column 2, line 15 from bottom, for *find*, read *found;* page 291, column 2, line 9 from bottom, for *laid*, read *lain*.

COMMUNICATIONS have been received from—

Dr. Walshe; Dr. Mackenzie; Mr. Lane; Mr. Quain; Dr. Fuller; Dr. Snow; Mr. Gay; Dr. Mackay; A Subscriber; M.R.C.S. Eng.; A Constant Reader; Students; J. C.; The Westminster Hospital School of Medicine; Mr. James V. Solomon; Dr. G. Johnson; Mr. Robert O. Clark; The London Hospital Medical College; The President and Treasurer of St. Thomas's Hospital; The Queen's College, Birmingham; Dr. Rigby; W. N. N.; Mr. E. A. Bowring; Mr. Jones, Jersey; Dr. T. A. Henderson; C. G. of M.; Mr. C. Inglis; The Registrar-General of Scotland; H. L.; The Lecturers of the Middlesex Hospital; J. H.; The General Board of Health; Mr. J. R. Keal; Alpha; E. B.; Dr. Doyle; A. B.; Mr. W. Rhys; Mr. J. Shilleto; Mr. J. Atkin; Mr. J. B. Scriven; Dr. Paget; Mr. G. Worthington; Dr. H. J. Walker; Medicus; Mr. C. Bateman; Mr. T. Cocks; Mr. T. Bates; A. H.; A. J.; Chemical Inquirer; The Hon. Sec. of the Medical Society of King's College, London; Inquisitor.

APPOINTMENTS FOR THE WEEK.

3. *Saturday* (*this day*).

Operations at St. Bartholomew's, 1½ p.m.; St. Thomas's, 1 p.m. King's, 2 p.m.; Charing Cross, 1 p.m.

5. *Monday.*

Operations at the Royal Free Hospital, 1 p.m.; Metropolitan Free Hospital, 2 p.m.; Orthopædic Hospital, 3 p.m.

6. *Tuesday.*

Operations at Guy's, 1 p.m.; Westminster, 2 p.m.

7. *Wednesday.*

Operations at University College Hospital, 2 p.m.; St. Mary's, 1 p.m. Orthopædic Hospital, 3 p.m.

8. *Thursday.*

Operations at St. George's, 1 p.m.; Middlesex, 12½ p.m.; Central London Ophthalmic, 1 p.m.; London, 1½ p.m.

9. *Friday.*

Operations at the Moorfields Ophthalmic, 10 a.m.; Westminster Ophthalmic, 1½ p.m.; Great Northern, 2½ p.m.

King's College, London. — Medical

DEPARTMENT.—The WINTER SESSION 1857-8 will commence on Thursday, October 1, 1857, on which day all Students are expected to attend the Introductory Lecture, at Two o'clock, by Dr. Johnson.

The following Courses of Lectures will be given :—

Anatomy—Professor Richard Partridge, F.R.S.

Physiology and General and Morbid Anatomy—Professor Lionel S. Beale, F.R.S.

Chemistry—Professor W. A. Miller, M.D., F.R.S.

Principles and Practice of Medicine—Professor George Budd, M.D.

Principles and Practice of Surgery—Professor William Fergusson.

KING'S COLLEGE HOSPITAL.

Physicians { George Budd, M.D., F.R.S. ; R. B. Todd, M.D., F.R.S. ; George Johnson, M.D. } With care of In-Patients.
Physicians { W. A. Guy, M.B., F.S.S. ; Lionel S. Beale, M.B., F.R.S. } With care of Out-Patients.

Physician for Diseases of Women and Children and Physician-Accoucheur, Arthur Farre, M.D., F.R.S.

Assistant-Physicians { Charles Murchison, M.D. ; Conway Evans, M.B.

Surgeons { W. Fergusson, F.R.S. ; Richard Partridge, F.R.S. ; William Bowman, F.R.S. } With care of In-Patients.
Surgeons { Henry Lee, F.R.C.S. .. .. With care of Out-Patients.

Assistant-Surgeons { John Wood, F.R.C.S. ; John Whitaker Hulke, F.R.C.S.

Surgeon-Dentist—S. Cartwright, jun.

The Hospital is visited daily. Clinical Lectures are given every week, both by the Physicians and by the Surgeons. The Physicians' Assistants and Clinical Clerks, the House-Surgeons and Dressers, are selected by examination from the Students of the Hospital.

Scholarships.—New Students will have the privilege exclusively of contending, in October next, for seven Warneford Scholarships—viz., two of £25 per annum, for three years, and five of £25 per annum, for two years. The Examination commences on the 29th of September next, in Divinity, Classics (subjects the same as for the Matriculation Examination this year at the University of London), Mathematics, History, and the Modern Languages.

One Scholarship of £40, tenable for three years; one of £30, for two years ; and three of £20 each, for one year, will be filled up in April next, the subjects of the Examination being exclusively Medical.

Further particulars may be obtained from Dr. Guy, Dean of the Department ; and a detailed prospectus will be forwarded by application to J. W. Cunningham, Esq., Secretary.

R. W. JELF, D.D., Principal.

Highland and Agricultural Society.—

EDINBURGH VETERINARY COLLEGE.—The Committee of the Highland and Agricultural Society of Scotland, appointed to superintend the Veterinary College, hereby intimate that the Session will commence on WEDNESDAY, the 4th NOVEMBER, at 4 o'clock.

The Course of Study includes the following Classes :—

1. Zoiatrics, Veterinary Medicine and Surgery—Professor Dick.
2. Zootomy, Veterinary Anatomy and Physiology—Mr. M'Call.
3. Chemistry—Dr. Allen Dalzell.
4. Veterinary Materia Medica and Pharmacy—Dr. Allen Dalzell.

Anatomical Demonstrations—Mr. M'Call.

By Order of the Committee,

Jn. HALL MAXWELL.

Edinburgh, 21st September, 1857.

To Surgeons.—Mr. Lawley, of Lom-

BARD HOUSE, 78, Farringdon-street, City, has for Sale a first-class AMPUTATING CASE, by Weiss, Strand ; also a capital CASE, by Simpson, Strand ; both in first-rate order. All kinds of Surgical and Mathematical Instruments bought, sold, or exchanged. Money advanced in sums of ten guineas and upwards on every description of valuable property.

Nervous and Mental Disorders.—Wyke

House, Sion Hill, Isleworth, Middlesex, a private establishment for the care and recovery of Ladies and Gentlemen mentally afflicted. Conducted by Mr. ROBERT GARDINER HILL, late Resident Medical Proprietor of Eastgate House, Lincoln, and by Dr. E. S. WILLETT.

The Objects most to be desired in

effecting a LIFE ASSURANCE.—These are, Perfect Security and the Largest Benefits in proportion to the Contributions paid. They are both fully attained in the SCOTTISH EQUITABLE LIFE ASSURANCE SOCIETY, which is now of Twenty-six years' standing, and possesses Accumulated Funds, arising from the contributions of Members only, amounting to upwards of One Million Sterling, and has an Annual Revenue of upwards of £176,000.

The MUTUAL PRINCIPLE being adopted, the entire surpluses or "Profits," as ascertained Triennially, are allocated in addition to the sums Assured, and they present a flattering prospect to the Members. For example : the sum now payable on a Policy for £1000, effected in 1831, is £1590 5s. 8d , being a return of Seventy-one per Cent. on the premiums paid on middle-aged lives, and Policies effected in later years are similarly increased.

The NEXT TRIENNIAL DIVISION of PROFITS will take place on 1st MARCH, 1859.

Head Office, 26, St. Andrew-square, Edinburgh.
ROBT. CHRISTIE, Manager.
WM. FINLAY, Secretary.

London Office, 26, Poultry, E.C.
ARCHD. T. RITCHIE, Agent.

Western London Office, 6a, James's-street, Westbourne-terrace, W.
CHARLES B. LEVER, Solicitor Agent.

Imperial Life Insurance Company,

1, OLD BROAD-STREET, LONDON.

Instituted 1820.

T. George Barclay, Esq., Chairman.

Martin T. Smith, Esq., M.P., Deputy Chairman.

One-Third of the Premium on Insurances of £500 and upwards, for the whole term of life, may remain as a debt upon the Policy, to be paid off at convenience ; or the Directors will lend sums of £50 and upwards, on the security of Policies effected with this Company for the whole term of life, when they have acquired an adequate value.

Four-fifths, or 80 per cent. of the Profits are assigned to Policies every fifth year, and may be applied to increase the sum insured, to an immediate payment in cash, or to the reduction and ultimate extinction of future Premiums.

At the fifth appropriation of profits for the five years terminating January 31, 1856, a reversionary bonus was declared of £1 10s. per cent. on the sums insured, and subsisting additions for every premium paid during the five years. This bonus, on policies of the longest duration, exceeds £2 5s. per cent. per annum on the original sums insured, and increases a policy of £1000 to £1638.

Proposals for insurances may be made at the Chief Office, as above ; at the Branch Office, 16, Pall Mall, London ; or to any of the agents throughout the kingdom.

BONUS TABLE.

Showing the additions made to Policies of £1000 each.

Date of Insurance.	Amount of Additions to Feb. 1, 1851.	Addition made as on Feb. 1, 1856.	Sum payable after Death.
	£ s. d.	£ s. d.	£ s. d.
1820	523 16 0	114 5 0	1638 1 0
1825	382 14 0	103 14 0	1486 8 0
1830	241 12 0	93 2 0	1334 14 0
1835	185 3 0	88 17 0	1274 0 0
1840	128 15 0	84 13 0	1213 8 0
1845	65 15 0	79 18 0	1145 13 0
1850	10 0 0	75 15 0	1085 15 0
1855	—	15 0 0	1015 0 0

And for intermediate years in proportion.

The next appropriation will be made in 1861.

Insurances, without participation in Profits, may be effected at reduced rates.

SAMUEL INGALL, Actuary.

Family Endowment Life Assurance

AND ANNUITY SOCIETY.

12, Chatham-place, Blackfriars, London.

Established 1835.

CAPITAL, £500,000.

DIRECTORS.

John Fuller, Esq., Chairman.

Lieut.-Col. H. B. Henderson, Deputy Chairman.

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ORIGINAL LECTURES.

A COURSE OF LECTURES
ON THE
NATURE AND TREATMENT OF THE DISEASES OF THE EAR,
DELIVERED AT
St. Mary's Hospital Medical School.

By JOSEPH TOYNBEE, F.R.S.
Aural Surgeon to St. Mary's Hospital, Lecturer on Aural Surgery at St. Mary's Hospital Medical School, and
Consulting Aural Surgeon to the Asylum for the Deaf and Dumb.
(Reported by JAMES HINTON, Esq.)

LECTURE XVIII.

CAVITY OF THE TYMPANUM.

MUCOUS MEMBRANE.

Anatomical Observations.—The tympanic cavity is lined throughout by a fine membrane, which forms the internal layer of the membrana tympani, and from which it can sometimes be detached without difficulty. Internally it covers the surface of the promontory and the membrana propria of the fenestra rotunda; it is reflected from the promontory at the circumference of the fenestra ovalis upon the surface of the stapes, and it envelopes the incus and malleus, by means of which it is continuous with the inner layer of the membrana tympani; above and below this membrane it covers the osseous walls of the tympanum, posteriorly it is prolonged into the mastoid cells, anteriorly it is continuous with the lining membrane of the Eustachian tube. This mucous membrane of the tympanic cavity in a healthy ear is so extremely thin as to be quite transparent, and its presence upon the surface of the osseous walls and ossicles of the tympanum can often be detected only by the use of a magnifying glass and by the aid of touch. In a natural state the nervous filaments upon the surface of the promontory are very distinctly seen, the margin of the fenestra rotunda is defined and regular, and the membrane which occupies it is thin and transparent. The crura of the stapes, as well as their point of connexion with the base, are seen distinctly, and a distinct fissure is observable between the inferior surface of the crura and the promontory. The quantity of mucus covering this membrane is so small in a healthy ear as to be scarcely perceptible. This membrane is composed of extremely fine and delicate fibres, and its structure exhibits a strong analogy to that of the serous membranes. Over its surface extends a layer of very minute epithelial cells; these again are covered by others which are flat, broad, and elongated, terminating in a row of well developed and firm ciliæ. The supply of blood vessels is abundant, but they are so minute as not to be perceptible except when they are distended with blood. In disease these vessels are very much dilated and surcharged with blood. In young persons the membrane is highly vascular, and when successfully injected it appears to be pervaded by plexiform ramifications. Beneath the mucous membrane lie the branches of the tympanic nerve from the glosso-pharyngeal. In addition to the branches of this nerve which have been described by Mr. Swan and Professor Arnold, I have been enabled by the aid of the microscope to detect numerous filaments distributed to every part of the membranous lining of the internal wall of the tympanum, and their presence seems to offer a natural solution of the cause of the very acute pain which is experienced when there is inflammation of this structure.

I have thought it desirable to be thus particular in the description of the structure and relations of the lining membrane of the tympanum, as it will be found that frequent reference is made to the description in the pathological details which follow.

This portion of mucous membrane presents great analogy to the serous membranes, from its extreme tenuity and great smoothness; it has also another point of resemblance to these structures in the frequency with which membranous bands are found connecting together various parts of the tympanic cavity.

Pathological Observations.—The diseases of the tympanic cavity are numerous and important. Perhaps the most common affection to which the organ of hearing is subject is a greater or less degree of thickening of the tympanic mucous membrane, with or without catarrh through the membrana tympani. Besides this affection, a simple accumulation of mucus in the tympanic cavity is of great frequency; and, finally, anchylosis of the stapes to the fenestra ovalis is a most common disease.

The diseases of the tympanic cavity, as revealed by the dissection of 1013 diseased ears, are as follow:—

Contents.

Mucus	65
Blood	6
Blood and mucus	1
Blood, mucus, and lymph	1
Serum	10
Serum and mucus	3
Serum and lymph	1
Lymph	6
Epithelium	2
Epithelium and oil	1
Serofulous matter	20
Calcareous matter	8
Cerumen	1
Cholesterine	1
Cholesterine and mucus	5
Cellular tissue	2
Oily matter	1
Pus	17

State of the Mucous Membrane.

More vascular than natural	75
Thicker than natural	211
Thick and very vascular	16
So thick as to conceal the stapes	27
So thick as to fill the tympanic cavity	6
Ulcerated	24
Pulpy	5
Containing black pigment cells	2
Having serum beneath it	1

Membranous Bands between

Malleus and promontory	6
Malleus, incus, and promontory	1
Malleus and stapes	1
Malleus, stapes, and promontory	6
Incus and promontory	5
Incus, stapes, and promontory	3
Incus and malleus	1
Stapes and promontory, the mucous membrane being healthy	79
Stapes and promontory, the mucous membrane being thick	48
Stapes and promontory, the mucous membrane being vascular	6
Stapes, promontory, and pyramid	1
All the ossicles	30
All the ossicles and the promontory	9
Tensor tympani muscle (the tendon) and the stapes	3
Chorda tympani nerve, incus, stapes, and promontory	2
Chorda tympani nerve and upper wall of tympanum	1

Malleus

Adherent to the promontory	1
Absent, apparently from caries or ulceration	4
Partly removed by caries	1
Malleus and incus lying in the mastoid cells	1
Fixed by ligamentous anchylosis to the upper wall of the tympanum	3
Fixed by osseous anchylosis to the upper wall of the tympanum	2
The body anchylosed to the incus	3
The long process detached from the membrana tympani	3
The long process fractured	1
The long process in contact with the promontory	3

The long process adherent to the incus	1
The long process detached from the body	1
The long process absent	2
The long process carious	3
The long process exostosed	1
Incus.	
Absent	4
Long process absent	2
Partly removed by caries	8
Disconnected from stapes	14
Disconnected from stapes and malleus	1
Fixed by membranous anchylosis to the orifice of the mastoid cells	2
Stapes.	
The base anchylosed by bone to the fenestra ovalis	49
The base anchylosed by bone to the fenestra ovalis, the base being expanded	6
The base anchylosed by membrane to the margin of the fenestra ovalis	36
The base anchylosed by membrane to the margin of the fenestra ovalis, the base being expanded	6
The base anchylosed by membrane to the margin of the fenestra ovalis, an exostosis surrounding the fenestra	2
The base of the stapes attached to the fenestra ovalis more rigidly than natural	66
The base projecting into the cavity of the vestibule	5
The base expanded and more fixed than natural	7
The base expanded and projecting into the vestibule	2
Detached from incus and attached to the membrana tympani	1
Anchylosed to incus	2
Detached from the fenestra ovalis and the incus	2
Disconnected from the fenestra ovalis	1
Partially absorbed	1
Atrophied	1
Absent, apparently from ulceration	2
All the Ossicles.	
Less movable than natural	4
Absent, apparently from ulceration	2
Disconnected from each other	1
Carious	2
Osseous Walls.	
Thickened	1
Carious	6
Upper wall partly deficient	54
Lower wall partly deficient	25
Osseous lamina between mastoid cells and lateral sinus incomplete	2
Osseous lamina between mastoid cells and cavitas cerebelli incomplete	1
Canal for portio dura nerve incomplete	2
Carotid canal contracted	7

This table of morbid appearances must of course be considered only as a general view of the diseases of the tympanum.

The plan I purpose following, for the sake of investigating the subject, will be to consider successively the affections of the mucous membrane of the ossicle.

1. *The Mucous Membrane of the Tympanum.*

The diseases of the mucous membrane of the tympanum are—

1. Congestion.
2. Acute inflammation, with or without the effusion of lymph or blood.
3. Chronic inflammation, with or without an accumulation of mucus.
4. The formation of membranous bands.
5. Ulceration.

1. *Congestion.*—Congestion of the tympanic mucous membrane usually follows a cold or an attack of influenza. The symptoms are a feeling of deadness in the ears, sounds like the ringing of bells, dulness of hearing, and not unfrequently slight pain. If neglected, this affection is liable to advance to acute inflammation. It frequently accompanies congestion of the mucous membrane of the fauces and of the Eustachian tubes. *On examination*, the surface of the membrana tympani is sometimes observed to be very shining; in other cases it is opaque. The hearing power is but slightly diminished. *The treatment* consists in applying leeches below the ears, and using gentle counter-irritation over the mastoid processes. The symptoms commonly yield in a few days.

CASES.

Mrs. B , æt. 40, was sent to me by a medical man in May, 1853. She enjoyed good health. *History.*—Has not suffered from any affection of the ears until a fortnight since, when, subsequently to an attack of cold, a feeling of numbness and a sound as of the ringing of bells supervened in both ears. There was also at times a shooting pain in the right ear. *On examination*, the mucous membrane of the fauces was observed to be red. *Right ear.*—The membrana tympani was rather more opaque than natural. The hearing power natural. Eustachian tube pervious. *Left ear.*—Membrana tympani opaque; hearing distance, three inches; Eustachian tube pervious. *Treatment.*—Slight counter-irritation by means of a stimulating liniment was kept up over and around each ear, and in the course of ten days the symptoms were wholly removed.

Mrs. P., æt. 73, consulted me in July, 1853. *History.*—Six weeks previously had an attack of influenza, which was succeeded by considerable pain in the right ear; this was followed by a sensation of "pumping" in the ear, which has continued to the present time; recently deafness of that ear has been complained of, and the voice appears to come out of the ear. *On examination*, the membrana tympani and Eustachian tube appeared to be normal, but the hearing power was much diminished, the watch being heard only when pressed upon the ear. *Treatment.*—A leech was ordered to be placed below the ear, and the symptoms abated. Counter-irritation was resorted to, and by degrees all unpleasant sensations vanished.

2. *Acute Inflammation.*—It has not hitherto been in my power to distinguish between acute inflammation of the mucous membrane of the tympanum and that of its fibrous membrane, the periosteum, which is subjacent to it. When the delicacy of these membranes is taken into consideration, and that the two are so intimately united as to form one membrane, which is of such extreme tenuity that its presence in the healthy ear can only be detected by careful examination, it would be a source of surprise if acute inflammation were to attack one of these structures without involving the other, although in many cases I have no doubt that one of them is more implicated than the other. In the description of acute inflammation of the mucous membrane of the tympanum, I shall, therefore, include the periosteum; and it appears to me that the symptoms to be detailed fully indicate that the view I have taken is correct. If the mucous membrane of the tympanum be examined during an attack of acute inflammation, and an opportunity to do so presents itself when a patient suffering from this affection dies of another disease, the blood-vessels, as in the specimen here presented to you, are so large and so numerous that upon a cursory inspection the membrane seems as if it were covered by a layer of dark coloured blood. Upon more careful inspection, however, it is observed that this blood is confined to the cavity of the vessels, but that the latter are completely distended in every part.

The *predisposing cause* of this affection, especially in adults, appears to be a peculiar condition of the atmosphere. It frequently occurs that several patients are attacked with this species of inflammation of the ear about the same time, this being in the spring, or whenever an east wind is prevalent. The exciting cause usually is exposure to a draught of cold air, or the sudden change from a high to a low temperature, or *vice versâ*. In its more mild form this affection is met with in children, and is known under the name of ear-ache; and although the paroxysms of pain are often very severe, the symptoms are generally confined to the ear, and do not produce much constitutional disturbance. In children it is evident that the mucous membrane is affected more than the periosteum, and perhaps one cause of the comparative mildness of the affection in young persons is that the tympanic

fibro-mucous membrane is more lax and extensible than in the adult.

In children attacks of acute inflammation of the mucous membrane of the tympanum are apt to be greatly neglected, and the consequence is that they frequently recur in the same child, and if they do not at the time produce a serious lesion of the membrana tympani, or obstruction of the Eustachian tube, they probably lay the foundation of deafness in after life by producing a permanent thickening and rigidity of the fibro-mucous membrane; partial anchylosis of the stapes seems to originate in this manner. When a Medical man is called to see a child suffering from inflammation of the mucous membrane of the tympanum he will generally find that the outer surface of the membrane is very smooth and shining, and it has more or less a red colour, which depends upon the distension with blood of the vessels of the mucous membrane forming its inner layer. Sometimes this mucous membrane has become thickened, and the membrana tympani assumes a sodden appearance, a condition which is also liable to occur when the tympanic cavity contains an accumulation of mucus. It commonly happens that in children the chief pain is experienced at night, when the recumbent position and the heat of the pillow favour the congestion of the membrane. Although the child may not complain of pain in the day, and when seen by the Surgeon may be cheerful, as if the attack of inflammation had wholly subsided, still should there remain any appearance of congestion, or on the application of the watch any dulness of hearing, it is of importance to apply one or two leeches below the ear, and to keep up a slight discharge behind it.

In the adult this affection is usually of a much more formidable character. It is often preceded by an ordinary catarrh, and the first symptom is a sense of uneasiness in the ear, which is increased to pain during motion, or pressure on the organ, the act of deglutition, or the use of the pocket handkerchief. This uneasiness soon amounts to pain, which in severe cases rapidly increases, until it becomes so intense as to be scarcely endurable; it extends over the mastoid process, and the whole of the affected side of the head, down the neck, and into the fauces. The power of hearing becomes greatly diminished, and a variety of the most horrible sounds are experienced; sometimes these sounds are described to be like the puffing and hissing of a steam engine; and these are often varied by others, as if a series of explosions was taking place in the ear, and these again change to a sound like ringing of bells. A symptom of this affection which adds greatly to the suffering of the patient, is the impairment of the functions of the brain; sometimes it amounts only to a confusion of ideas, often accompanied by extreme fear, and depression of the nervous system, so that patients are apt to have the worst forebodings respecting the result of the attack; in other cases delirium supervenes; and in the most formidable cases death takes place from extension of the inflammation to the membranes of the brain. In cases where only some of these symptoms are present, and they are of a much le s violent character, there may be a doubt in the mind of the Surgeon, whether the affection is in the tympanic cavity or in the meatus. An examination of the ear with the speculum and lamp decides the question, for in the affection under consideration there is no appearance of inflammation in the dermoid meatus or the membrana tympani. The modes in which this affection terminates are the formation of lymph, the effusion of serum into the tympanic cavity, which escapes through the Eustachian tube into the fauces, or a copious secretion of pus or mucus, which distends the tympanum, causes ulceration and perforation of all the laminæ of the membrana tympani, and an abundant discharge ensues. In some cases there is no indication of any secretion occurring in the tympanum, and the affection seems to terminate by resolution; in others the dermoid meatus pours out a sympathetic discharge without the presence of any orifice in the membrana tympani. The prognosis in cases of this disease is favourable, and it is a great consolation to the patient to be assured, amidst the very distressing symptoms from which he suffers, that no permanent injury need be feared. It would appear that a single attack of inflammation of the fibro-mucous membrane of the tympanum, however violent it may be, does not leave behind it that rigidity, and consequent dulness of hearing, which is a sequence of the attacks of a more mild character occurring in children. When an orifice forms in the membrana tympani it most usually closes without difficulty, and the power of hearing is in the course of two or three weeks completely restored. In some cases, which fortunately are rare, the inflammation extends to the petrous bone, and thence to the membranes of the brain, causing death. One of these cases has fallen under my observation, and has already been brought before you in my lectures on the Diseases of the Brain arising from affections of the Ear. (a) It not unfrequently happens that the inflammation extends to the portio dura nerve in the aqueduct of Fallopius, and partial or complete paralysis of that nerve is the result, which is removed as soon as the inflammation has wholly subsided.

The treatment of this affection consists in the first place of the local abstraction of blood by leeches or cupping, the leeches being applied at the orifice or behind the ear, and the cupping practised directly below it. Leeches may also be applied to the nostrils. Vapour baths should be frequently applied to the ear, so as to allow the steam to penetrate as far as the membrana tympani. The throat should be frequently gargled with hot water. The patient should be kept perfectly quiet, as the least excitement and exercise are apt to aggravate the symptoms materially: the room should be darkened, and all sounds are as much as possible to be avoided. The use of mercury will be found very efficacious, especially when combined with full doses of opium or morphia. When the pain is very intense it is desirable to keep the patient during several hours under the influence of opium. In the early stages of the affection tartar emetic proves advantageous. When the discharge has appeared the meatus should be gently syringed with a copious supply of warm water thrice daily.

In children the treatment may usually be less active, but it is important to try the application of leeches and counter-irritants thoroughly, to subdue the inflammation as rapidly as possible. (b)

(To be continued.)

LECTURE

ON THE

NERVOUS STRUCTURES AND THE ACTION OF THE HEART.

BEING ONE OF THE LUMLEIAN LECTURES READ BEFORE THE

Royal College of Physicians, March, 1857.

By ROBERT LEE, M.D. F.R.S.

Concluded from page 265.

In the month of May, 1847, I presented a paper to the Royal Society, "On the Nervous System of the Heart." It was considered of the highest importance by some of those who had carefully watched all the proceedings at the Royal Society in 1845, relative to the ganglia and nerves of the uterus, that the discovery of the ganglionic nervous system of the heart should be communicated to all anatomists and physiologists through the "Philosophical Transactions." The drawings which accompanied the paper were made by Mr. West, who had been employed as an artist by Mr. Swan upwards of twenty years to illustrate his great work entitled "Demonstration of the Nerves of the Human Body."

On the 15th of January, 1848, an anonymous document, entitled "Report of the Referees of the Physiological Committee of the Royal Society on Dr. Robert Lee's Paper on the Nervous System of the Heart," was published in the *Medical Times*, and the day before in the *Medical Gazette*. The Reports drawn up by referees on papers presented to the Royal Society ever since its foundation have been considered secret and confidential. It was soon ascertained that this secret Report had been carried by the Senior Secretary, with the consent or at the request of the referees, to the printers and editors of these Journals, and caused to be published in them without the knowledge or sanction of the Council or Committee of Physiology of the Royal Society. As no similar document has ever been published during the last two centuries, and as the existence of the ganglia and nerves of the heart is wholly denied in it, and as this Report was adopted by the Committee of Physiology, and as it would have been adopted by the Council but for my interference, it possesses a very peculiar interest and importance. It is altogether unique:

(a) Medical Times and Gazette, Jan 20, 1855.

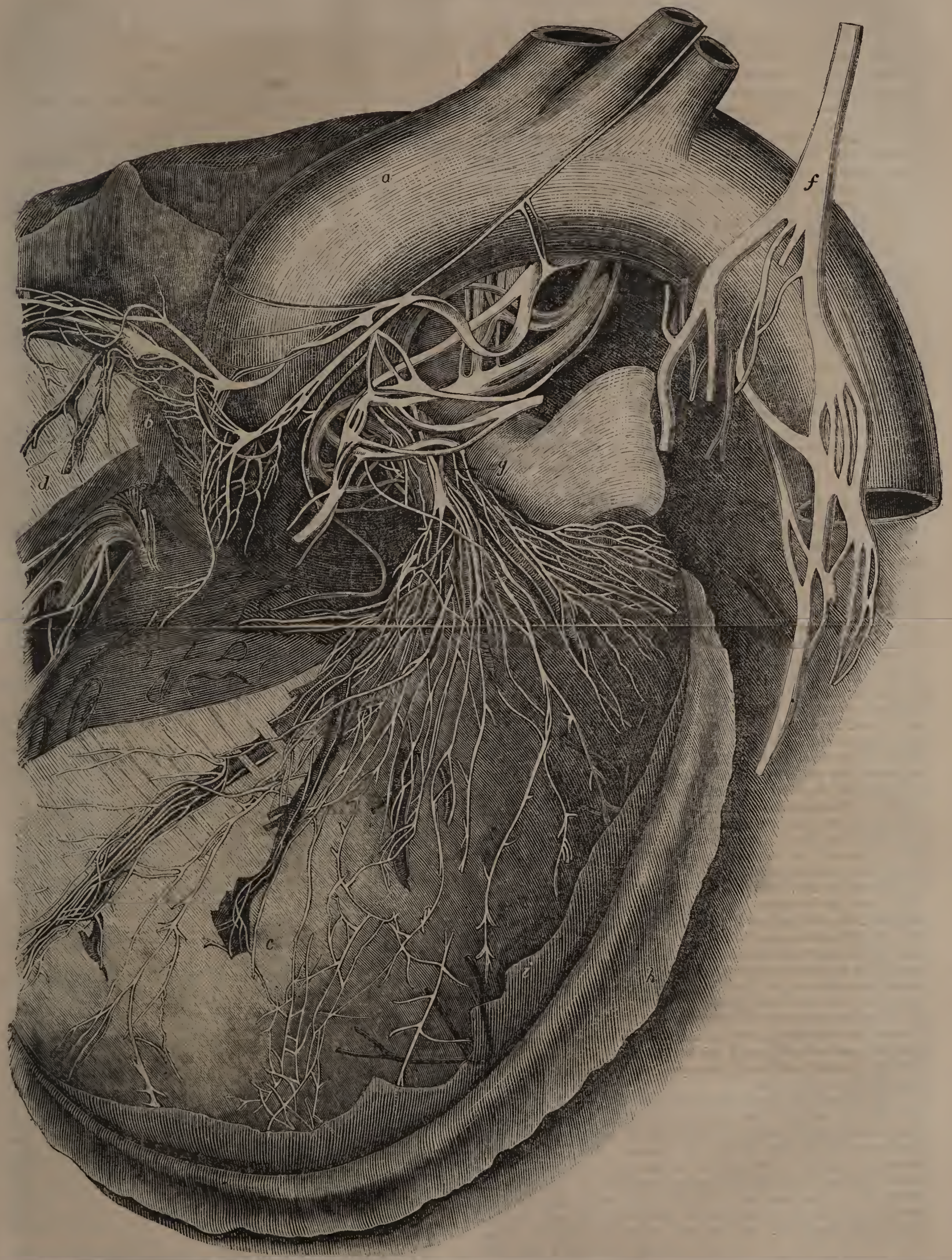
(b) Cases illustrative of acute inflammation of the mucous membrane of the tympanum will be found in my Lectures on Affections of the Brain arising from Diseases of the Ear.

PLATE III.

EXPLANATION OF PLATE III.—This plate exhibits the trunk and branches of the coronary arteries and the ganglia and nerves distributed over the anterior surface of the ventricle of the young heifer's heart, the serous membrane and cardiac fascia having been wholly removed.

EXPLANATION OF PLATE IV.—Represents the aorta and the anterior surface of a human heart which was hypertrophied, and weighed four pounds. The trunk and some of the branches of the left coronary artery were ossified. The pulmonary artery has been cut away close to the right ventricle. A portion of the wall of the right ventricle has been removed, to expose the cavity and the septum between the ventricles. The serous membrane has been reflected off from the cardiac fascia, a small portion only of which has been left covering the ventricle. *a*. The arch of the aorta. *b*. The origin of the pulmonary artery, which has been completely removed. *c*. The anterior surface of the left ventricle. *d*. The anterior surface of the right ventricle. *e*. The great ganglionic plexus of nerves, into which branches from the par vagum, recurrent and sympathetic nerves of both sides enter, and from which the principal cardiac nerves take their origin. *f*. The par vagum of the left side. *g*. The trunk of the left coronary artery ossified and completely surrounded with ganglia and nerves, which are distributed over the whole surface of the ventricle to the apex. *h*. The serous membrane reflected off from the cardiac fascia, a small portion only of which is left covering the ganglia and nerves near the apex. *i*. The cardiac fascia.

PLATE IV.



"*Report of the Referees of the Physiological Committee of the Royal Society, on Dr. Robert Lee's Paper on the Nervous System of the Heart.*"

"Nine pages of this paper are occupied by historical references, the remaining seven, by the author's account of the nerves and ganglia of the heart, derived from dissections of a fœtal heart at four months and a half, the heart of a child six years old, that of an adult, and the heart of an ox.

"The author states that these dissections warrant the conclusions,

1. That numerous ganglia and plexuses exist in the heart, which have not been described or represented by preceding anatomists.

2. That these nervous structures enlarge as the heart enlarges up to the adult state.

3. That the ganglia and nerves of the heart enlarge in hypertrophy of the organ.

4. That the ganglia and nerves of the left ventricle are more than double the size of those of the right.

"We shall speak of these conclusions in detail.

"1. The author says, (page 14,) 'Many great branches of nerves with ganglia formed upon them, accompany not only all the branches which pass into the muscular substance of the heart.' Again, (p. 15,) 'There are numerous branches of nerves with ganglia distributed over both surfaces of the ventricles of the human heart, which do not accompany the blood-vessels.' 'On the portions of the ventricles which are destitute of fat, these ganglia and nerves are distinctly visible to the naked eye, through the cardiac fascia, and present a very remarkable appearance.' 'Towards the left side and apex of the left ventricle they spread out into ganglionic enlargements.' Again, (p. 16,) 'Ganglia are formed of considerable size on these superficial nerves, where they are crossing the blood-vessels, and from these chains of ganglia over the arteries, branches are sent off, etc.' 'On these superficial cardiac nerves there are numerous ganglionic enlargements observed, as they proceed from the base to the apex of the ventricle, and from these ganglia the muscular substance of the heart is supplied with innumerable branches which pass between the fasciculi.' 'The appearances now described,' he adds, 'have been represented in the accompanying drawings from recent dissections.'

"Only one drawing seems to have been sent in with the paper on the 15th April, 1847: viz. No. 1; No. 2 was sent in on the 20th May. This drawing, when the paper was referred to us on the 7th July, bore the following pencil note:—'The drawing is not finished on the part presenting the septum of the ventricles. The other parts are completely finished, natural size.'—R.L., 2nd January, 1847. No. 3, representing the ganglia and nerves on the surface of the left ventricle of the ox, the author states, was sent in with the paper on the ganglia and nerves of the virgin uterus. This, consequently, we have not seen.

"Drawing No. I. represents about twenty-five ganglia in the course of the nerves, ramifying over one surface of the heart of a child 6 years old.

"Drawing No. II. (the hypertrophied human heart), in that part of it which the author states to be completely finished, represents nearly as many ganglia, many of which are slight fusiform swellings of the nerves, and besides these the delicate nervous filaments are shown as enlarging in many situations to three or four times their previous diameter, and sometimes forming a loop in this enlarged state, ere they penetrate the substance of the heart.

"Understanding it to be the author's wish that we should inspect his dissections, we devoted part of a morning to that purpose, and carefully and minutely examined all he placed before us, and particularly the specimens from which No. I. and II. had been taken.

"We found the preparations to have been made with considerable devotion of time and manual skill, but in many parts the nerves were incompletely divested of fibrous and cellular tissues; still, on the whole, the nerves represented in the drawings could be recognised in the preparations; but we could discover none of these ganglia depicted. On the contrary, the preparation left no doubt in our minds that no such ganglia exist in the course of the cardiac nerves over the surface of the ventricles. In one part of the Drawing No. I. are represented fifteen or twenty nervous filaments, and two plump, well-marked ganglia; while in the corresponding part of the preparation from which the drawing was made, neither nerve nor ganglia was discernible.

"With regard to the enlargements of the nervous filaments towards their termination, we found in like manner that the descriptions of the author, and the pencil of the artist, were alike incorrect. According to Drawing No. II. one of these enlargements near the apex of the ventricle is as large as the cardiac nerves in the aortic and cardiac plexus. This, compared with the same parts in the preparation, can only be styled an extravagant misrepresentation.

"In what we have now said we do not allude to one or two small ganglia at the base of the heart, which are well known to be occasionally present in the course of the cardiac plexuses.

"2. We inspected the heart of the fœtus and of the child with reference to the question of the enlargement of the nerves with the growth. It appeared, as might have been expected, that those of the child were considerably larger than those of the fœtus, though no accurate estimate of their size relative to the whole organ could be formed. The heart of the adult in the healthy state, the author informed us, was not in a sufficiently advanced state for our inspection.

"3. For the last mentioned reason we could form no conclusion as to the grounds of the author's statements that the ganglia and nerves enlarge in hypertrophy of the organ.

"4. It appeared that the nervous supply of the left ventricle was greater than that of the right.

"In reviewing this paper it is evident that the statement of greatest importance, if correct, is that which describes numerous ganglia and ganglionic enlargements to exist on the cardiac nerves in their course over the surface of the heart. The descriptions are very explicit as to their existence, and the illustrations sent in by the author depict these ganglia in what we might almost call a luxuriance of number and size. We were, therefore, hardly prepared to find that the preparations from which the descriptions and drawings have been taken, and to which the author refers as the basis of his communication, contain no warrant, as far as we could discover, for the statement that such structures exist in the situation ascribed to them. In saying this we do not intend to throw doubt on the description by Remak of microscopical ganglia with grey corpuscles on the cardiac nerves. We do not recommend this paper for publication in the Transactions."—Aug. 8, 1847.

On the 22nd of January, 1848, in the *Medical Times* there appeared a letter, headed "Dr. Robert Lee's Cardiac Nerves," in which the writer, who is a Fellow of the College of Physicians, and whose name has since been communicated to me by the sub-editor, says, "There can now be but one opinion of the nerves of Dr. Lee's heart, and as an old Fellow of the Royal Society, and a member of the Medical Profession, I do think that in some shape or other the *nefarious attempt* to impose upon the Royal Society calls for a signal mark of their disapprobation. It has often, and will often happen that papers are presented to them, which from want of novelty or importance they very properly refuse to publish in their 'Transactions;' but a fraudulent attempt, such as has been made on this occasion by Dr. Robert Lee, ought, undoubtedly, to be met with some appropriate mark of the Society's opinion of him as a man of honour and veracity, and they ought deliberately to consider how far such a man is a fit person to remain in the body."

On the 5th of February, in the same Journal, by the same writer, there appeared a letter, headed, "To the College of Physicians, and their Impurities," in which the discovery of the ganglia and nerves of the heart is characterized as "a singular attempt to impose upon the Royal Society." "If what has been publicly said of Dr. Robert Lee's conduct, and if the report of the Physiological Committee, published in the *Medical Times*, be correct—of which I suppose there is no one who entertains a doubt—I do protest that the College to which he belongs, as well as the Royal Society, should diligently scrutinize the whole matter, and act with all due circumspection, and with that decision which so monstrous a case seems unquestionably to demand." In another letter the same person, in the same Journal, Feb. 10, put the following question:—"If Dr. Lee be found guilty what will the College of Physicians do? what will the Medico-Chirurgical Society do?" Both did their duty honourably.

The late President of the Royal College of Physicians, who was a lover of truth and justice, said he considered that he

had a public duty to discharge when he appointed me Lumleian Lecturer here, and put into my hands the identical rod with which the immortal Harvey demonstrated the circulation of the blood; to demonstrate to you, the ganglia and other nervous structures of the uterus and heart, for the discovery of which it was proposed by a Fellow that I should be expelled from the Royal Society and the College of Physicians.

The forced retirement of the President and Senior Secretary, and the dissolution of the Committee of Physiology took place in no long period; and the ground being thus cleared from all the rubbish, I proceeded to make more elaborate dissections of the ganglia and nerves of the heart, and to get drawings executed by Mr. West with the greatest accuracy.

On the 7th of May, 1848, I presented another paper to the Royal Society, entitled, "On the Ganglia and Nerves of the Heart," in which all the statements made in the first paper were repeated in the most forcible manner. Professor Owen was appointed one of the referees, and the other referee was Mr. Lawrence, who not only himself sees very clearly, but has restored to sight many a blind man. Mr. Lawrence requested that all the preparations should be placed upon a table in a clear light, and compared with the drawings and the description in the paper. "Let us compare," said Mr. Lawrence, "every ganglion and nerve delineated by the artist with the corresponding ganglion and nerve in the preparation." When this had been done, I heard Mr. Lawrence say, "There are ganglia and nerves in the preparations which have not been delineated in the drawings; but there are none, so far as I can discover, in the drawings which are not seen in the preparations." The paper was accordingly recommended to be published, and it appeared in Part I. of the Philosophical Transactions, with five engravings. Here is the paper on the ganglia and nerves of the heart (holding it up).

Dr. William Hunter has furnished me with an excellent apology, if such can be required, for entering into details, which the vindication of truth and justice, and all the principles of morality, on this occasion imperatively demanded.

"Perhaps it may be as sound philosophy to say that all the actions of men are directed to some good end," he observes, "as it is to subscribe to an opinion which has prevailed among naturalists, that in the works of nature nothing is absolutely without its use. Literary disputes are disagreeable to the greater part of mankind, and the disputants are, for the most part, condemned by the world. Yet it is reasonable to think that these disputes answer some good purpose. By engaging the passions of men more warmly, they rouse a spirit of emulation, and give a spur to inquiry.

"It is remarkable that there is scarce a considerable character in anatomy that is not concerned with some warm controversy. Anatomists have ever been engaged in contention; and, indeed, if a man has not such a degree of enthusiasm and love of the art as will make him impatient of unreasonable opposition and encroachment upon his discoveries and his reputation, he will hardly become considerable in anatomy, or in any other branch of natural knowledge."

ORIGINAL COMMUNICATIONS.

AN IMPROVED METHOD OF AMPUTATION AT THE ANKLE-JOINT.

By RICHARD QUAIN, F.R.S.

Reported by VINCENT JACKSON, House-Surgeon to University College Hospital.

My object is to give an account of a change made by Mr. Quain in the method of performing this operation; but as it has been illustrated by two cases recently, and, indeed, simultaneously in the Hospital, I will first notice them.

E. B., æt. 21, a soldier in the Guards, native of Lincolnshire, fair-haired, and florid in complexion, a full-bodied and well-proportioned young man, gave this account of the disease of his foot:—Eleven months ago, whilst jumping at leap-frog, having pitched on the point of his left foot, he felt in it at the time a pricking sensation, but not enough of uneasiness to cause him to desist from playing. Pain, however, came on during the night, and next morning the foot was swollen. Cold applications were used, but as he got no better he was soon taken into the regimental hospital. There he continued under treatment for nine months. The foot became in the meantime much swollen; abscesses formed; and he was discharged from the regiment and the service on account of the persistence of the disease of the foot. When this person was admitted to the Hospital, at the end of last April, the left foot was much swollen over the tarsus, and there were several ulcerated openings through the skin. When the tarsal and the tarso-metatarsal joints were moved he felt much pain. But the ankle-joint (tibio-tarsal) did not give that or any other indication of disease. The sinuses extending from the ulcerated openings on the surface, at the inner side of the foot and on its dorsum, were found to lead to the head of the astragalus, to the scaphoid and the cuneiform bones, and to the junction of these last with the metatarsal bones. Another sinus opening beside the tendo-Achillis was believed to conduct to the joint between the astragalus and the os calcis.

The foot was removed. Everything went on well afterwards without interruption. The ends of the tibia and the fibula were well covered with a pad of the plantar integument and muscle; and the patient was walking about with crutches in three weeks after the operation. On examination of the foot after its removal, the disease was found to extend through the tarsal bones, and their joints with one another and with the metatarsal bones. The peroneo-tibial surfaces of the astragalus alone of the tarsal articular surfaces were unaffected, but the disease on the head of that bone extended up to the anterior ligament of the ankle-joint. The interosseous ligament connecting the astragalus and the os calcis was reduced to a pulp, while the articular surfaces at each side of it were wholly disorganised.

The second case was in the same ward at the same time. These were the particulars of it:—

Richard I., æt. 20, states that in early childhood he suffered from enlarged glands of the neck; that fourteen months ago he felt pain in the right ankle in consequence of the pressure of a tight boot. The pain was followed by swelling. When he came to the Hospital there was a good deal of deformity of the foot from swelling about the ankle. The swelling was most prominent at both sides. At the inner side it was mainly below the margin of the inner malleolus and over the tarsus; on the opposite side it was in front of the outer malleolus. Both the lateral swellings were connected by an elevation extending across the foot in front of the ankle-joint. Incisions were made, and healthy pus escaped in large quantity. Subsequently diseased bone was detected extending across the foot, and involving all the tarsal bones at their joints, including the joint between the astragalus and the calcaneum. The foot being amputated, the patient, whose health before then was very low from the constitutional effects of the disease, now rapidly improved. The condition of the stump was likewise very satisfactory in every respect. Afterwards the patient was sent to the country, to the convalescent Hospital, for a month, and on his return his whole aspect was that of vigorous health. At the same time it was interesting to observe that the muscles of the calf of the leg, on the side from which the foot had been removed, had partaken in the general increase of the muscular system.

October 1st.—This young man walked into the Hospital to-day to show himself. He is in excellent health; he walks well with a boot, the foot-part of which is stuffed; he bears firmly on the end of the stump. The stump itself is sound at every point, and in no degree tender to pressure anywhere. The date of the operation was May 14.

The following observations are taken from my notes of Mr. Quain's clinical lecture upon the foregoing cases:—"It appears to me, and indeed it has always appeared to me, that the chief advantage of the operation for removing the foot at the ankle-joint, is due to the fact, that the patient is enabled in progression afterwards to bear directly upon the stump. After any other amputation higher up—that for instance above the ankle, which in other respects is equally if not more advantageous, the person cannot bear his weight upon the end of the stump. Ulceration of the integument would follow; while after an amputation at the ankle-joint, with a flap taken from beneath the heel—from structures, that is to say, which are organized for the purpose—with that covering the bones, pressure is sustained by the end of the stump without injury.

"Now as to the plan of performing the operation:—When it was first suggested that the flap should be taken from the

under surface of the foot instead of being made from the front and sides of the joint as previously practised, Mr. Syme, the author of the suggestion, advised that an incision should be made from one malleolus to the other beneath the os calcis. But the dissecting back the concave flap thus marked out from the projection of the heel is a tedious process. One has to dissect in a confined space over the irregularities of the bone; and it has often happened that the integuments have been perforated behind the heel. Moreover if you read the histories of cases fairly reported, in which the operation has been performed in that way, you will find that counter openings were subsequently required to evacuate pus collected in the cup-like flap. It is in consequence of these evils that I was led to operate in the manner you saw in these cases. Thus, after the incision from malleolus to malleolus under the os calcis, I make a straight incision at right angles with the first, to the back part of the heel on the outer side of the foot, a little above and parallel with its outer margin—between therefore the point of the outer malleolus and the margin of the foot. This plan facilitates the dissection from the os calcis, and hastens the operation. Independently of the direct advantage of this method of operating, I may remind you by way of answer to possible objections, that the blood vessels (anterior tibial and posterior tibial) as well as the thicker soft structures, lie at the forepart and inner side of the ankle-joint and beneath the foot. It is upon the careful preservation of these parts that the nutrition and the firmness of the stump depend. At the outer side, on the contrary, the os calcis is covered only with integument, while the slender blood vessel, the end of the peroneal artery, as it runs along the periosteum, is injured, probably made useless during the dissection. Hence the incision through this part, while it sets free the flap all around and hinders the bagging of purulent matter, does not interfere with any important structure.

"It may be mentioned, too, that in the recorded cases of the amputation as usually performed, the outer part of the flap, the part now in question, had often been mentioned as having sloughed. This fact is accounted for by the conformation just referred to."

As no mention is made in the foregoing observations of other parts of the operation, it perhaps should be stated that Mr. Quain makes the plantar part of the principal flap short, though long enough to cover fully the end of the tibia; and that he forms an anterior flap, which in the cases above related met the larger one easily. He dwells on the advantage of so cutting the edges of the two flaps, by bevelling the parts beneath the integument, that they shall in the dressing meet skin to skin as far as possible. This is done with a view to avoid the need for the formation of much new skin during the cicatrization.

I may likewise mention, that with the same view of facilitating the process, I have seen the operation performed with an incision directed obliquely backwards from the malleoli to the point of the heel. This plan, of course, removes the difficulty by omitting the only difficult part of the operation; but the structures from the sole of the foot, those "organized for the purpose" of bearing the weight of the body in progression, are excluded from the flap. The importance of using the structures beneath the heel was enforced by Mr. Quain some years ago, in a "CLINICAL LECTURE ON 'THE PLACES OF ELECTION' FOR AMPUTATIONS OF THE LOWER LIMB," published in the *Medical Times*, vol. iii. (new series) page 659, and referred to in his recent clinical lecture. In laying down general principles applicable to the amputations of that limb, he there says—"That in no case where the operation is made through the leg or the thigh, can the person afterwards rest easily the end of the stump upon the artificial support. It is only where a part of the sole of the foot is made to cover the bone that the end of the truncated limb will sustain without pain or injury the weight of the body. In other words, it is only the structures which are organized for the purpose that will sustain the pressure in these circumstances without causing pain or suffering ulceration." And again, in the same lecture these words occur: "I may state that even when this modification in the method of performing the amputation was first made known I took occasion to perform it, and I then advocated the plan on the same grounds that I now offer in recommendation of it." The date of the publication from which these extracts are taken is 1851. I shall only add, that the operations which I saw performed without including in the investment of the bone the structures here adverted to, did not seem to promise a very satisfactory result.

THREE CASES CONNECTED WITH AFFECTIONS OF THE INTESTINAL CANAL.

By G. M. JONES.
Surgeon to the Jersey Hospital.

Case 1.—*A Train of distressing and dangerous Symptoms of years' standing entirely removed after operating for Femoral Hernia.*—I received a pressing message on the night of the 18th June last to visit (in the absence from the island of her usual medical attendant) Mrs. Skilton, of Prospect-place, St. Aubin's-road, stated to be dying. The following concise history of her case is partly derived from herself, and partly from my own observations of the symptoms she laboured under.

This patient is in her 33rd year, was married in 1843, and is the mother of three children, the youngest now seven years old; she has never considered herself very strong, but enjoyed tolerable health till within the last four years, when, during a pectoral affection, she experienced severe pain in the right groin, and then for the first time perceived a tumour scarcely the size of a filbert; it was pronounced a rupture, and a truss was recommended; this she wore regularly during the day, but very seldom at night. From this time she dates frequent attacks of nausea, often accompanied by severe vomiting. For the last ten months she has been unable to leave her sofa or bed, in consequence of increased weakness, emaciation, and the almost constant inability to keep other than farinaceous food on her stomach; her bowels, always rather constipated, have become much more so of late, so that aperient, and not unfrequently drastic, purgatives have been required to produce alvine evacuations. Three months ago the rupture became strangulated, and it required long and repeated efforts on the part of her surgeon to reduce it; since then her sufferings have been more severe—vomiting much more frequent, increased loathing of food, together with an ardent desire to quench intolerable thirst. When I saw her the following symptoms existed. The tongue showed great gastric irritation, pulse very small and tremulous, great tenderness over the epigastric region, increased on pressure, and then producing retching; below the umbilicus the tenderness was extreme, and the slightest touch in this part was followed by a degree of faintness: there existed such collapse of the abdominal parietes that the aortic pulsations could not only be distinctly felt, but were visible also; the hernial tumour was very apparent, a mere touch was sufficient to reduce it. The bowels had not been relieved for two days. The catamenia, always regular, was on the point of disappearing. The patient informed me that her case was diagnosed as a cancerous affection of the uterus, and disease of the mesenteric glands. I shall merely state that during the week preceding the operation I endeavoured to allay the irritability of the stomach; and this was in some measure effected by alkalies and prussic acid; counter-irritants were also employed, and the bowels opened by means of enemata and castor oil. The patient (as thousands of patients do), expressed herself as benefited. A fresh doctor is almost sure to effect miracles for a short time. I must own I did not flatter myself I had gained ground, though the means employed may have allayed some of the most urgent symptoms. On the 19th I was informed that my patient was considerably worse, and my friend, Mr. Vaudin, visited her for me. He found her labouring under irreducible hernia of near fourteen hours' duration. This is enough to say that the vomiting was stercoraceous. On seeing the patient I perfectly agreed with Mr. Vaudin that immediate operative interference was necessary; the tumour was exquisitely tender, the vomiting frequent, almost constant, skin cold and clammy, pulse jerking, and great prostration. The operation was commenced in the usual manner, and on opening the sac, a very large quantity of serum escaped, (a) this so relieved the apparent strangulation that the visible portion of bowel, which was

(a) Authors agree in stating that the sac in femoral hernia contains but little fluid. The quantity in this case was certainly full six times more than I have ever witnessed.

highly congested, to all appearance slipped easily into the abdomen, but on introducing my finger as high up as I was able, it was found firmly strangulated at the internal ring; the stricture was at once dissolved, and the bowel liberated. A large opiate was given, and beef-tea and wine and water ordered to be occasionally taken. This patient was seen regularly for fourteen days, and I shall merely relate a few points connected with her rapid, and I may add extraordinary recovery. No aperient medicine was given; an injection on the second day was all that was required; the wound healed by the first intention. She was allowed generous diet from the commencement, and when asked on the evening of the fifth day, the amount of nourishment she had taken, her reply was, "Two eggs and bread and butter for breakfast, chicken and bacon for lunch, lamb for dinner, and crabs and bread for tea, besides two tumblers of porter. On the 11th day she was found busily engaged at the wash-tray, and on the 13th day after the operation I met her walking upwards of a mile and a half from her home.

Remarks.—I have had numerous opportunities of operating for strangulated hernia, both in males and females, but cannot recal to mind a single case in which I have met with so perfect a recovery in so short a time, nor have any of my cases offered points of interest equal to this one. Here was union by the first intention, not I believe a very common occurrence; obstinate costiveness of years' standing succeeded by a regular and daily evacuation; atrophy followed by comparative *embonpoint;* disgust for food, and almost perfect inability to swallow any for nearly a twelvemonth, by so good an appetite that aliments of all kinds are not only relished, but easily digested; a suspected cancerous and mesenteric gland affection, if ever existent, leaving no trace behind; powerless for three years, and so confirmed an invalid as to require servants to attend on her, able within a fortnight after a severe operation to attend to herself and minister to the wants of her husband and family.

These facts are interesting, but many an operation is followed by results equally gratifying, though seldom in so incredibly short a period; but it is in a practical point of view that this case derives its greatest interest. Had M. Vaudin succeeded in returning the visible rupture as had, with a single exception, been so very easily done numbers of times before, or had I been able to accomplish this when the patient was under the influence of chloroform, no beneficial result could have ensued; on the contrary, the same dangerous symptoms which had existed for years, and which arose from a hidden cause, would still have increased in severity, and ultimately terminated in death. Here were two strictures; the superficial one relieved by the escape alone of the fluid contained in the sac, and the deep or internal one so firmly constricted at Gimbernat's ligament as to require its division; and I think it cannot for a moment be doubted that in this situation incarceration of the intestine must have existed in a greater or less degree for some years.

It may reasonably be asked, Is a Surgeon justified in having recourse to operative measures when there is no positive evidence that strangulation exists,(b) or is he warranted in using the knife when the fingers, aided by other means, have apparently overcome that which seemed to peril life? The answer to the first question seems plain. If we know that hernia has at any period existed, although not apparent at the time we are called in; that a train of symptoms is present similar to that which occasionally attends incarceration, and invariably strangulation; that the ordinary rules laid down in such cases not only fail in obtaining relief, but on the contrary every bad symptom increases under them,—then a Surgeon is, in my opinion, justified in cutting down on those parts once known to be the seat of rupture, and suspected to be so still; if disappointed, the operation in itself cannot increase the existing danger, and it may be the means of preserving life. The second question can as easily be answered, and perhaps even more satisfactorily. We imagine we have reduced a femoral hernia; the same dangerous symptoms as before continue. Are our hands then to be tied; is this a time for inertion? Certainly not; the very fact that the danger remains unrelieved affords evidence of the most conclusive nature that the constriction, apparently removed, is in reality not so; and the course to be followed is obvious, for to no class of operations is the axiom, "When in doubt, operate," more applicable than in cases of this nature.

It is to be feared that the taxis is occasionally carried too far; (c) too much manipulation can but increase the already congested state of the bowel, and must render the result of an operation doubly hazardous; the experienced Surgeon eleven times out of twelve can tell whether an operation will or will not be required; his fingers at once impart this knowledge, which it would be difficult for the pen to describe.

I saw this patient yesterday (September 19th), and am happy to say she continues perfectly well.

Case 2.—Large Umbilical Hernia, in which the Sac and Integumental Structures which contained it were removed by Amputation after its Reduction.—Recovery.—In or about March this year, Mrs. Brehard, aged 28, of middling height, but exceedingly corpulent, called to consult me respecting a very large umbilical hernia, which caused her constant inconvenience and frequent suffering. The protrusion had an extraordinary appearance, and its contents seemed to occupy three separate compartments. On the right side it was kidney-shaped, on the left conical, and its centre was rounded. Its entire circumference was 20 inches, height in its most prominent part 4¾ inches, though indeed throughout there existed but little difference in this respect. The following is a statement of her case:—She is the mother of five children, the youngest three years old. About seven years back she perceived, for the first time, a small protrusion at the umbilicus. For a considerable period it remained stationary, and she experienced very little inconvenience from it, but dates the commencement of great flatulence (which has but increased) from this period. Two years ago the tumour became almost suddenly larger, and ten months after assumed its present form. She has worn various kinds of bandages, but none have afforded her relief. Her appetite is very good, but she dreads taking a full meal, in consequence of the great uneasiness, not to say pain, it occasions. Almost daily she has to lie down for an hour or two after dinner, the recumbent position being that from which she derives the greatest amount of comfort. Her bowels are generally confined, and aperient medicine is often required. My first object was to return this large mass into the abdominal cavity; but I was unsuccessful. A considerable portion disappeared, but evidently a part of each of the three convolutions already mentioned had adhesions beyond the power of external manipulation to liberate, so that the moment pressure was withdrawn the tumour regained its large and unsightly appearance. I recommended the employment of mechanical means; and although frequently seeing this patient follow her usual occupation of a fish-woman, I heard nothing more of her case until the 30th of June this year, when I was hurriedly summoned to see her, and was not a little surprised to find her chemise and several towels saturated with blood, and that this hæmorrhage had escaped from the tumour itself. On examination I distinctly perceived it welling through a small aperture in the middle lobe, if I may so call it, the integumental part of which seemed otherwise healthy. There also existed an abraded surface, about the size of a half-crown piece, on each of the other protruded parts, unhealthy looking, and of a dry, ashen appearance. (d) The patient felt faint, with small pulse, a tendency to sickness, and bowels constipated. Astringent lotions were ordered, and the case attentively watched. Towards evening the hæmorrhage had almost disappeared, but the general aspect of the tumour was worse. The fol-

(b) Every practical Surgeon is, or ought to be, acquainted with the admirable work of my friend, Mr. Gay, on femoral hernia. His views on surgical subjects, and more particularly perhaps on this one, are such as can be followed out with the certainty that nothing he recommends is other than the fruit of his own experience. In a letter I received from him a short time since is the following passage, "Have you ever operated upon simply irreducible (so-called) hernia? I should recommend you, when you have a case which is the source of annoyance to the patient, to do so, although it be not strangulated. I have done so with the best results."

(c) The great dread this patient had of suffering as she did when reduction was supposed to have taken place three months ago, rendered much persuasion necessary before she allowed M. Vaudin to employ the taxis. She was most willing to submit at once to an operation in preference to any attempt made by manipulation. She described the agony she felt for two days on the first occasion as almost unbearable, and stated that all the distressing symptoms had increased tenfold from that period.

(d) Sir Astley Cooper states, "One circumstance of danger which is peculiar to umbilical hernia is, that when the skin has become very thin over the tumour, the pressure simply of the protruded parts will sometimes very early destroy the life of that portion of the integument by stopping the circulation through it. It first turns green, the cuticle then separates from it, and that portion of the skin becomes dry, and of a brown colour, and in the instances in which this circumstance has come under my observation the patients died."

lowing operation was then performed:—An incision was very cautiously made throughout the entire tumour, and its contents were thus brought to view. Omentum alone was discovered, but so adherent in three places to the sac by semi-cartilaginous bands, that dissection alone was able to separate it; other bands, less firm, were broken down by means of the finger. My wish to return, if possible, the omentum by means of the taxis rather than divide the ring, was by far the most difficult part of the operation; the fingers of both hands had to be introduced into the sac, while the index one of each by degrees accomplished its entire reduction. An assistant now grasping *en masse* the base of the empty sac, pinched its edges together, while stitches were applied; the hernial sac (e), together with the integuments which covered it, were next amputated, about a quarter of an inch above; here, again, the lips were secured by sutures, and a double row of stitches was the result; pledgets of lint, moistened in water, were applied to the wound, and a roller only moderately tightened round the abdomen. An anodyne was ordered an hour after, and pills composed of ¼ gr. opium and 1 gr. calomel were given every five hours, and continued regularly for three days. No untoward symptom occurred during the cure, which was accomplished in sixteen days. On the tenth, the patient was able to sit up a few hours, and, at the expiration of three weeks was to be found selling fish at market, as well and as active as she had been, not only before the operation, but before she experienced the rupture. There is now a firm cicatrix where the tumour existed, and a slight belt is worn by way of precaution.

Remarks.—I am not aware, but speak reservedly on this point, that a procedure altogether similar to the one I followed in this instance has been carried out by others in cases of umbilical hernia. At first sight, many may arrive at the conclusion that other means, apparently less hazardous to life, might have been employed with equal success. It is true that Nature alone will sometimes effect a cure in cases which come under the Surgeon's observation; it is also certain that the rapid strides conservative surgery is now making affords abundant proofs that ends, far more desirable than those which heretofore resulted from the only means which appeared available for the preservation of life, can now be attained with less danger to it, and with results of which a Practitioner may well be proud; but while caution and prudence ought always to be the Surgeon's chief motto, timidity must never be found by their side; and, without grounding my argument on the old saying, "The end justifies the means," I conceive that an analysis of the case warranted the plan I followed.

The admirable method employed by Mr. Gay in irreducible umbilical hernia, and so strongly recommended by Mr. Fergusson and others, could not (at least, so it appears to me) have proved available in this case. The sac contained viscera adhering most firmly to the integuments, and that, too, in three parts, each at a considerable distance from the other, so that the laying it completely open was, if not the only, at all events the best means of liberating the omentum, and more particularly as it was decided before operative measures were commenced, that the mass of integumental structure, etc. which contained it was to be removed after its reduction.

It is very possible that as the hæmorrhage had nearly ceased some six hours after I first saw this patient, further time, without greater risk to life, might have been allowed before having recourse to the knife; but the old adage, "Delay is dangerous," can in no instance be better applied than in some cases appertaining to Surgery; and it struck me forcibly that the putting-off system (one unhappily too often practised), might deprive me altogether of the advantages an early operation might afford. I had never seen a case in which hæmorrhage to such an extent, indeed to any extent whatever, had happened, nor have I seen this feature mentioned in any of the authors I have consulted on this subject: the dread of a fresh outbreak would of itself have led me to cut down on the part, and employ those means best calculated to prevent its recurrence; but independent of this, the appearance of the integuments covering the sac was quite sufficient to decide me on removing it as quickly as possible, for had it been allowed to slough (and it was fast approaching the stage when it would have done so), what reason is there for supposing its contents might not have sloughed likewise. One important fact must not be lost sight of: there exists an immense difference between the destroying a part willingly and by mechanical means, and the same part becoming destroyed by disease; in the one instance we have healthy structure, and healthy surrounding parts, in the other it is quite the reverse; and it was the desire of following out the great object the Surgeon has in view, that of limiting (for at times this is all he can aspire to) the further progress of disease, which led me to amputate without hesitation an entire mass, which if allowed to remain must, I conceive, have become even more disorganised than it was at the time.

I am far from sanguine that the present apparent cure will be lasting; this can only be decided after a much longer period has elapsed. Dessault, the greatest authority in his day on this point, and who revived one of the two principal plans of operating adopted by the ancients, (f) was much more successful the younger his patients were, so that up to 18 months, say 3 years, his cures were generally permanent, at 4 years they became more doubtful, and at 9 years the protrusion most commonly returned; and Mr. Lawrence, whose views on all subjects connected with his Profession can be relied on, remarks, "There is a very essential difference in the nature of the umbilical rupture as it occurs in the infant or the adult, and this distinction is derived from the tendency to contraction in the tendinous ring; in the former case a radical cure can easily be obtained, in the latter it is nearly impossible." It is, however, gratifying to feel, that even should protrusion reappear, by timely precaution it may be kept *in situ*, the adhesions which formed so powerful an obstacle in the first instance to its reduction, no longer acting as a barrier, and whatever the final result may be, it is certain that symptoms which threatened life, and would undoubtedly have destroyed it, were curtailed by operative measures, and up to this time successfully; that the patient who had for a length of time been much inconvenienced, and frequently a great sufferer, is at present in the enjoyment of perfect health.

(e) Some Surgeons deny the existence of a hernial sac in umbilical rupture; it is enough to state the opinion of Pott and Lawrence on the subject: the former states, "Whatever are the contents, they are originally contained in the sac formed by the protrusion of the peritoneum." The latter writes, "The umbilical hernia is not only furnished with a true peritoneal sac, but it possesses likewise a more superficial investment, derived from a condensation of surrounding cellular substance."

(f) Celsus speaks of different methods employed in his time, and by others who preceded him: "A needle with a double thread," writes this ancient author, "must be passed through the inferior part of the navel, being then empty, and with these threads the different sides of the navel must be tied very tight; thus what is above the knot dies, the navel subsides, and is closed with a firm cicatrix; others lessen the ligature, cut the top in a rectilinear direction, lest they should pass the needle through the intestines or omentum at the same time; again, some cauterised the deligated part with caustics or the cautery, and healed the ulcer as in other burns." And if we compare the mode of operation, as performed by Desault, and that practised by Saviard, a Parisian Surgeon who flourished with considerable celebrity upwards of a century before, we shall find complete identity in the manner each carried it into execution; so that Desault, in the strictest acceptation of the term, merely revived an old operation. Saviard "laid his patient on his back, and having repressed the intestines, elevated as much as possible the umbilical tumour, and then tied the skin at the bottom with a quadruple waxed thread; in two days he put on another ligature, when the swelling began to putrefy, and three days after he added a third, always making the former ligature tighter, so that at last the tumour separated, and a cure was the result." In almost these very words the more modern Practitioner recommends the operations to be performed.

SOME ACCOUNT OF THE

RECENT MEETING OF NATURALISTS AND PHYSICIANS AT BONN.

By J. ZACHARIAH LAURENCE, F.R.C.S.

Having recently attended the thirty-third Annual Meeting of "the Society of German Naturalists and Physicians" at Bonn, I thought a short account of the proceedings might not be unacceptable to my Professional brethren in England; but, before doing so, I will give you a slight sketch of the principal features of this Society. It is called the "Gesellschaft deutscher Naturforscher und Aerzte," the "Society of German Naturalists and Physicians," understanding by the latter term Medical men generally. This Society was founded at Leipzig on the 18th of September, 1822. "The chief object," as expressed in its statutes, "of the Society is to afford the Naturalists and Medical men of Germany an opportunity of becoming personally acquainted with each other." The Society consists of 1. "Mitglieder," Members,

persons who have written on subjects of Natural History or Medicine. 2. "Theilnehmer," Participators, comprising all persons who simply occupy themselves with similar pursuits. The meetings are held on the 18th of September annually, and last several days. The place of meeting is changed every year; next year it is at Carlsruhe. The Society is not permitted to possess any property but its archives. The scientific department comprised this year twelve sections, with the annexed initial presidents. 1. Geology, Mineralogy, and Palæontology, Professor Nöggerath. 2. Botany, Dr. von Siebold. 3. Zoology, Professor Troschel. 4. Physics, Professor Plücker. 5. Chemistry, Professor Bergemann. 6. Agriculture, Professor Hartstein. 7. Mathematics and Astronomy, Professor Argelander. 8. Anatomy and Physiology, Professor Helmholtz. 9. Practical Medicine, Professor Naumann. 10. Surgery and Ophthalmology, Professor Busch. 11. Midwifery, Professor Kilian. 12. Physcology, Professor Albers.

One of the most remarkable arrangements is, that at each daily meeting of the sections a fresh president is chosen. To come now to the meeting at Bonn this year. It was well attended, 444 "members," and 509 "participators" being present, altogether 953, exclusive of ladies and visitors. Notwithstanding, however, this large attendance, I noticed a remarkable absence of those luminaries of science of Germany, whose names are so familiar to us in England. There was no Johann Müller there, no Kölliker, no Virchow, no Rokitansky, no Chelius. In this point of view, the meeting contrasted unfavourably with those of what I believe is its offspring, the British Association for the Advancement of Science, at the meetings of which we are accustomed to find the greatest scientific men of the British isles, and even of Europe generally. Without wishing to make any invidious distinctions, I may cite the names of Stromeyer, Wutzer, Kilian, Albers, Oesterlen, Schröder van der Kolk, Van Beneden, Donders, A. Braun, Dove, Moser, Vrolik, Le Roy d'Etiolles, Sédillot, Dr. Bialloblotsky, and our countrymen, Sir Roderick Murchison and Dr. Harley, as names more or less familiar to us in England. It would lead me too far were I to attempt to describe to you the various general meetings, the excursions, the concerts, the ball, the dinners, and the breakfasts that took place. Any one who has ever attended the meetings of the British Association, and any one who has not, will equally well imagine all these matters. Two incidents, however, deserve a special notice. At the first general meeting that was held, amongst other letters that were received, was one from Baron von Humboldt, regretting his absence, and expressing in the most nervous language his sympathy with the objects of the meeting. On the motion of Professor Nöggerath, we all rose simultaneously from our seats, and on a second proposal from that gentleman we at once telegraphed to that illustrious philosopher in Berlin how we had displayed our sense of his exalted mind. A similar incident occurred at the meeting of the anatomical section of the 21st ult. On the motion of Professor Mayer, of Bonn, the same homage was paid to the memory of our distinguished fellow-countryman Dr. Marshall Hall, with the wish, "Sit ei terra levis." Professor Mayer after this made a short communication to the section on Marshall Hall's Postural Treatment of Asphyxia.

Having now given you a general idea of the Society's doings, I shall reserve for next week an account of the proceedings of the special sections.

30, Devonshire-street, Portland-place.

THE LONDON

PRACTICE OF MEDICINE AND SURGERY.

ROYAL LONDON OPHTHALMIC HOSPITAL, MOORFIELDS.

REPORT OF THE OPERATIONS PERFORMED FROM THE 25th OF AUGUST TO THE 25th OF SEPTEMBER, 1857.

Communicated by Dr. BADER, Curator.

1. *Purulent discharge from the lachrymal sac.*—In four cases the treatment by the actual cautery has been employed: all were of long standing. The purulent matter escaped on pressure by the upper lachrymal punctum; the lower was found obstructed close to the sac. In one case (patient of Mr. Poland), there was the fistulous opening above the tendon of the orbicularies. The changes in the shape of the surrounding bones, the deposit of pus on the enlarged folded sac, the membranous bridges stretching across it, were the same as in most former cases.

In one case the bone was diseased, which made the application of the white hot iron necessary. The number of cases treated in this manner is too small to express an opinion about it; for a minute account of the operative part, and a considerable number of cases, see Desmarres, pages 393-414, vol. i. second edition.) For the future we shall confine ourselves to mentioning the number, duration, and result of the cases treated after Desmarres's method, unless something occurs which deviates from his experience or manner of operating.

2. *Operations on the eyelids.*—One case of ptosis of the upper lid improved by removal of an oval piece of skin. The disadvantage of this method is the not restoring of the fold between the orbital edge and the globe, in a second case of partial congenital ptosis of the upper lid a skin incision was made parallel to, and about six lines from the edge of the lid, and out of the subjacent tissue, the conjunctiva included, an oval piece was removed; the edges of this subcutaneous loss of substance were united with sutures and plaster applied to the skin wound. This modification of Mr. Bowman's operation for shortening the levator tendon from within, is expected to keep the lid drawn up, and to remedy the cosmetic defects of other methods. Enlargement of the palpebral aperture, by dividing the soft parts from the outer canthus to the orbital edge, and with sutures uniting carefully the upper part of the wound The same operation, but subcutaneously, has been tried on a second case; in both cases with a view of obviating the spasmodic contractions of the lids, and with complete success in the first case.

Complete eversion of both upper and both lower lids, with a highly granular state of the conjunctiva, and general enlargement of the palpebræ.

A large oval piece of conjunctiva was removed close to the palpebral edge of both lower lids. A large triangular piece, comprising the whole thickness of the lids, its base towards the palpebral edge, was removed from the middle portion of both upper lids. There was considerable arterial bleeding from the well-fed granulations. Mr. Hulke united the wounds with a needle, whose eye close to the point ends in a wooden handle. This instrument will be found useful where the pliability of the parts renders the use of simple needles tedious. One case of eversion of the upper lid, consequent on disease of the orbital bone; the lid had been sufficiently brought down by a former operation to protect the eye. To remove the slight remaining eversion an A-shaped incision was made through the skin, including the cicatrix: dissecting the flap from its apex towards its base it was rendered movable; the cut edges left by bringing down the triangular flap were brought together with sutures, and the everted lid regained sufficient movability to resume its normal position.

Removal of a pendulous growth from the upper cul de sac of conjunctiva, which consisted of organized fibrin, etc., and modelled into this shape by the movements of the lid; it was caused by a husk, which on everting the lid was found embedded in the conjunctiva, where it had been for two months.

3. *Muscles of the eyeball.—Thirty-five operations for internal, and one for external strabismus.*—Two cases had to be operated after the old plan, by dividing all the tissues in front of the sclerotica; these had been unsuccessfully operated elsewhere; there were numerous adhesions and considerable inversion of both eyes.

In five cases the eye had to be kept out by a thread. One severe case of internal strabismus is still under treatment; the eye (right) had so completely been turned in these last fifty years, that no part of the cornea was perceptible; the palpebræ moved over a convex vascular red surface; on careful examination, the outer edge of the cornea could be discovered behind the caruncule; after complete division of the muscles, &c., the eye was kept out with a thread; the present result was severe internal strabismus; the whole of the cornea was visible; the patient has no perception of light.

In one case of paralysis of the external rectus, the subconjunctival fascia had to be extensively divided to replace the cornea in the median line.

The external strabismus, the result of an operation for

internal strabismus, was to have been remedied after Graefe's method, by bringing forward the internal rectus. (See his elaborate paper in the Archiv für Ophthalmology.) After having divided the external rectus, an incision was made parallel to, and at the inner edge of the cornea, which divided all the tissue in front of the sclera; following the direction of the internal rectus, the soft parts were dissected of the sclera so as to make them movable on it, instead (as Graefe does) of searching for the muscle, separating and loosening it, &c.

Mr. Dixon suggested at the time to bring the whole of the dissected portions forwards; a thread drawn through the conjunctions at the outer edge of the cornea, and fixed to the skin of the nose, has to keep the eye turned in for the next thirty-six hours, in turning it in the movable portion advanced sufficiently to cover the inner edge of the cornea, and was left to unite in this position. Three weeks later, slight internal strabismus of both eyes. Under treatment.

If the eye has to be kept turned out, it is done either after Mr. Bowman's plan, as mentioned before, or in a modified way, by drawing strong silk through the conjunctiva, close to the corneal edge, enclosing a piece of conjunctiva of about three lines breadth, both ends of the silk are with a needle carried together from the conjunctiva behind the outer canthus through the skin outwards; a small roll of plaster is laid between both silk threads, and they tied over it.

If the eye has to be kept inverted, a single thread is carried from the conjunctions of the inner canthus, outwards, and fixed to the skin of the nose; or without being carried through the inner canthus it may be secured in this way.

4. *Iris.—Formation of an artificial pupil in six cases.*—In all there had been a large central corneal opacity: opening the cornea with the broad needle, the blunt hook was used; in some the iris was left in the corneal wound, in others it was snipped off; in all a large pupillary opening remained.

Artificial prolapse of the iris for the relief of what is called acute glaucoma. The operation introduced by Graefe has, in this case, been followed by a very satisfactory result. The man, a patient of Mr. Critchett, injured the left eye three years ago; immediate loss of vision and final softening and squaring of the globe were the result. Six weeks after the injury, when the inflammation had subsided in the left eye, a black speck spontaneously appeared in the right eye, which within three months diffused itself into a general mist; six months later, an inflammation appeared, which, continuing for six weeks, ended with considerable impairment of vision; three similar painful inflammatory attacks ensued before the patient came to the Hospital; the conjunctiva was then very vascular, the cornea slightly hazy. The iris of a dull grayish blue colour, the pupil large, immovable; the area of the pupil of a dull grayish hue, as if occupied by some disk-shaped exudation. The eyeball very hard and painful. The patient only saw the shape of large objects. Mr. Critchett, after having removed the left globe, opened the right cornea at the outer edge with a broad needle, and with the blunt hook drew out a considerable portion (one-third) of the iris, leaving it in the corneal wound; the grayish hue in the area of the pupil proved to be some kind of membranous exudation, thrown out there; as soon as the aqueous escaped it folded up and moved on the inner anterior aspect of the iris. Mr. Critchett considers that the inflammation in the eye is accompanied by so much exudation that its pressure is injurious, and that by drawing out the iris a kind of filter is established, which, whenever in the course of inflammation the quantity of fluid in the eye would be sufficient to press upon the contents of the globe, allows the injurious abundance of fluid to drain away. Ten days later; the conjunction much less vascular, the cornea transparent, the iris of normal colour, and the area of the pupil black, no pain; the patient told the time by a small watch.

The patient before he came to this Hospital had been treated with calomel and opium; and there is little doubt that if no surgical means had been adopted vision would have been lost. This kind of treatment for so-called acute glaucoma being new, I thought it proper to enlarge upon the case, especially since these cases are not unfrequent, and before this almost hopeless.

Detachment of adhesions of the iris in 8 cases; in all the cases the iritis had subsided; the organized exudation thrown out in the area of the pupil and more or less at the posterior surface of the iris causes, by bands stretching from it to the pupillary edge, and to the posterior surface of the iris, the irregularity of the pupil.

The pupil under the continued action of light contracts as much as the bands will allow, and it is not improbable that they, continually opposing the iris contractions, take some share in the relapses of iritis. The posterior surface of the exudation is glued to the lens capsule; the extent of this, the number, elasticity, strength, &c. of the adhesions, depend on the nature of the exudation itself. The operative treatment has shown the facility with which in many cases these pupillary adhesions may be detached from the exudation thrown out on the capsule, and also the exudation from the capsule itself. Mr. Streatfield has, as I believe, first performed this operation at the Hospital. He made a small corneal incision with the broad needle; and with canula scissors divided, or with the blunt hook detached the adhesions, or with the cataract spatula lifted them away from the capsule, by bringing the instrument between both, and gliding it up and down, and then divided the membrane or band.

In cases where the whole of the pupillary edge was adherent, Mr. Streatfield introduced a cataract needle at the pupillary edge through the adhesion, and then used the blunt hook for detachment of the remainder. No case was followed by an unfavourable result; one case, who could only distinguish dark from light objects, read the smallest print after the operation; a second case was much improved. The detachment of these adhesions, considering the transparency and elasticity of the capsule, might in many cases serve as a preparatory step for an artificial pupil, extraction, &c. In none of Mr. Streatfield's cases had the lens capsule been injured.

5th.—*Crystalline lens.*

Extraction of cataract, 6 cases; in one case the iris had been wounded, and forcibly contracting, hindered the easy escape of the lens; some vitreous humour was lost. 3 cases of congenital cataract (children), opening of the capsule with one needle; and breaking up the lens. The same operation was performed on two cataractous lenses of elderly people, ages 53 and 42.

In a case of traumatic cataract a central piece was taken out of the lens with the canula forceps, by entering the eye through the sclera, close to the corneal edge.

6. *Six Cases of False Membrane after extraction; operated with one or two needles.—Excision of the Eye.*—1. G. R., age 32, left eye, loss of vision by purulent ophthalmia; the cornea uneven, ulcerating at several places, perforated; the conjunctiva highly granular; the globe soft; severe pain in the eye; the patient has been suffering for one year and a half. 2. L. H., age 78, left eye, general ophthalmia; with perforation of the cornea; total prolapse of the iris; severe pain; inability to use the good right eye. In both cases most of the contents of the globe escaped through the cornea during operation. 3. W. W., age 34, left eye; immediate loss of vision by an injury three years ago; six weeks after this a black speck appeared before the right eye, which, within three months, diffused itself in a general mist; six months later the eye spontaneously inflamed; the inflammation continued for six weeks; the eye recovered vision partially; since then three other attacks of inflammation had occurred in this eye, all accompanied with pain, reducing vision to mere perception of light. 4. K., age 40, left eye; (see iris case of Mr. Critchett;) loss of vision by an injury; the globe soft. 5. A., age 21, right eye; loss of vision eleven years ago by an arrow wounding the eye; globe soft. 6. M. P., age 51; spontaneous loss of vision in the right eye nine years ago; four years ago the eye inflamed without any apparent cause; the inflammation, with severe pain in the eye, and over the corresponding side of the head, continuing more or less; the left eye followed the same course in a less degree. The patient recognises with it large objects; the eye, since the removal of the right one, is much easier, not painful, and with better perception of objects.

P.S.—The Medical officers would be much obliged to any of the profession who, in aid of the museum of the Hospital, would send eyes they may hereafter remove, addressed to the Curator, who will be happy to return a report of their minute examination.

The eyeball ought to be put in *pure glycerine immediately after removal.*

Total of major operations	90
Do. minor do.	104

STATISTICAL REPORT OF THE PRINCIPAL OPERATIONS PERFORMED DURING THE SECOND QUARTER OF 1857.

(Continued from page 298.)

The subjoined report includes as usual the following Hospitals:—University College, King's College, St. Bartholomew's, St. George's, Guy's, St. Thomas's, the London, the Middlesex, the Westminster, Charing-cross, St. Mary's, the Metropolitan Free, the Marylebone, the Hospital for Sick Children, and the Dreadnought Seaman's Hospital.

HERNIOTOMY.

Case 1.—The London: Mr. Gowland.—A woman, aged 60, hernia femoral; strangulated three days; sac not opened. Recovered. *Case* 2.—King's College: Mr. Bowman.—A man, aged 22, hernia scrotal; strangulated four days; sac opened. Recovered. Some sloughing of the scrotum followed the operation. *Case* 3.—St. Bartholomew's: Mr. Lawrence.—A man, aged 43, hernia inguinal; strangulated sixteen hours; sac opened. Recovered. *Case* 4.—St. Bartholomew's: Mr. Lawrence.—A woman, aged 63, hernia femoral; strangulated fifteen hours; sac not opened. Recovered. *Case* 5.—St. Bartholomew's: Mr. Lawrence.—A woman, aged 38, hernia femoral, strangulated twenty-six hours; sac not opened. Recovered. *Case* 6.—St. Bartholomew's: Mr. Stanley.—A woman, aged 53, hernia femoral; strangulated sixty hours; sac opened. Some oozing of blood took place at the time, and it became profuse twenty minutes afterwards. It was restrained by pressure at first, and the wound was subsequently enlarged, and the bleeding vessel (the obturator) tied. The patient recovered well. *Case* 7.—St. George's: Mr. Johnson.—A woman, aged 53, hernia femoral; strangulated six hours; sac opened. Omentum only was found in the sac. Sharp peritonitis followed the operation, but was subdued by calomel. Recovered. *Case* 8.—St. George's: Mr. Johnson.—A woman, aged 45, hernia femoral, and very large; strangulated two days; sac opened. Omentum in a peculiarly changed condition was alone found in the sac. It was left *in situ*, and subsequently sloughed. Sharp peritonitis followed. Recovered. *Case* 9.—St. George's: Mr. Johnson.—A woman, aged 40, hernia femoral; strangulated four days. The sac, when opened, was found to contain fæces, the intestines having given way. The gut was laid freely open and united by stitches to the wound. The fæcal discharge from the artificial anus gradually diminished, and at the time of report (six weeks) had almost ceased. Recovered. *Case* 10.—St. George's: Mr. Johnson.—A woman, aged 38, hernia femoral; strangulated twenty-four hours; sac opened. The intestine down consisted of the cæcum, and there was much difficulty in returning it. Peritonitis followed, but was successfully treated by calomel. Recovered. *Case* 11.—The Westminster: Mr. Hillman.—A man, aged 28. Hernia scrotal, and of large size; strangulated six hours; sac opened. Only gut was found in the sac, and it was acutely congested. The man never rallied well, but died in collapse about thirty-eight hours afterwards. *Case* 12.—The Metropolitan Free: Mr. Childs.—A man, aged 65. Hernia scrotal and large; had been irreducible for years. Ill-marked symptoms of strangulation had existed for twenty-four hours. There were also symptoms of head disease. At the operation the sac was found to contain only a large mass of cancerous omentum. The mass was cut away. The man died comatose on the third day. (For details, see *Medical Times and Gazette*, August 1, p. 117). *Case* 13.—The London: Mr. Wordsworth.—A woman, aged 55. Hernia femoral, of small size; strangulated thirty-six hours; sac opened. The bowel had been reduced without opening the sac, and omentum only was exposed. The omentum was adherent, and the crural ring was very tense. The bowels acted spontaneously the next day, but symptoms of peritonitis rapidly developed themselves, and death took place on the second day. *Case* 14.—The London.—A man, aged 53. Hernia femoral; strangulated twenty-five hours; sac not opened. A considerable mass of fat was cut away, in the belief that it was omentum, the tumour having been reduced by the taxis. The man did well for two days, when erysipelas occurred, and was followed by pyæmia, which ended fatally on the ninth day. At the autopsy the sac was found empty and unopened; it was surrounded by enlarged glands and lobulated fat, much resembling omentum. *Case* 15.—University College: Mr. Quain.—A man, aged 67, the subject of chronic bronchitis. Hernia inguinal; strangulated eleven hours; sac opened. Death followed thirty-nine hours afterwards. The autopsy showed no peritonitis. *Case* 16.—University College: Mr. Quain.—A woman, aged 51. Hernia femoral; strangulated forty-eight hours; sac opened. Death from peritonitis on the fifth day. *Case* 17.—University College: Mr. Erichsen.—A woman, aged 50; hernia femoral; strangulated four days; sac not opened; death from peritonitis on the fifth day. *Case* 18.—University College: Mr. Erichsen.—A woman, aged 46; hernia, for long irreducible; sac not opened. Death from peritonitis on the second day. *Case* 19.—University College.—A man, aged 66; hernia femoral; strangulated three days; sac opened; he was subject to cough, and very ill at the time. Death occurred on the tenth day. *Case* 20.—St. Bartholomew's: Mr. Coote.—A woman, aged 63; hernia femoral; strangulated three days; sac opened. She had been bedridden for several years, and suffered at the time from a large bedsore. The wound of the operation healed well, and she recovered; but death took place before she left the Hospital from bronchitis and debility. It was two months after the operation. *Case* 21.—King's College: Mr. Partridge.—A woman, aged 52, very ill; hernia femoral; strangulated forty-eight hours; sac opened. The bowels acted freely from the day of the operation. Erysipelas set in on the 25th day, and secondary abscesses subsequently formed. Death from pyæmia three months after the operation. *Case* 22.—St. Bartholomew's: Mr. Skey.—A man, aged 30; hernia inguinal; strangulated eight hours; sac opened. The symptoms were very urgent, and the gut was found intensely inflamed. Death from peritonitis on the second day. *Case* 23.—St. Bartholomew's: Mr. Coote.—A man, aged 28; hernia inguinal, and strangulated a considerable time. The sac was opened, and the bowel found nearly gangrenous. Death from peritonitis followed forty-eight hours afterwards. *Case* 24.—Guy's: Mr. Birkett.—A man, aged 81; hernia direct inguinal; strangulated seventy-two hours; sac opened. Death from peritonitis forty-six hours afterwards. The autopsy showed peritonitis and much effused lymph. *Case* 25.—St. Mary's: Mr. Spencer Smith.—An infant, aged 13 months; hernia scrotal and large; strangulated thirty hours; sac opened. About ten inches of small intestine were found down, and appeared to be in a fairly healthy condition. On the day after the operation, convulsions occurred, and the infant passed into coma. Death thirty-six hours after the operation. At the autopsy, the brain was found much congested, but the intestine was healthy. *Case* 26.—St. Mary's: Mr. Spencer Smith.—A man, aged 55. Hernia scrotal, very large; strangulated ten hours; sac opened. About six feet of ileum were found down, and in an almost gangrenous state. Death from collapse on the same day. *Case* 27.—Guy's: Mr. Cock.—A woman, aged 43. Hernia femoral; strangulated ten days. The sac appearing to be sound was not opened. All the symptoms ceased after the operation, but she passed into collapse, and died within twenty-four hours. At the autopsy, acute peritonitis was found, but the strangulated gut was itself not in an irreparable condition. *Case* 28.—King's College: Mr. Fergusson.—A man, aged 64. Hernia scrotal, strangulated twelve hours, sac not opened. Death from peritonitis with collapse on the same day. *Case* 29.—King's College: Mr. Fergusson.—A man, aged 28. Hernia scrotal, of large size, strangulated three hours; sac opened. On the third day, symptoms of peritonitis set in, and on the fifth those of pleurisy. The chest symptoms became urgent. Death on the ninth day. At the autopsy, fluid was found in both pleuræ, and spots of hepatization existed in both lungs. The scrotum was infiltrated with pus, and there was pus in one tunica vaginalis. *Case* 30.—St. Thomas's: Mr. Solly.—A man, aged 46. Hernia inguinal, strangulated seventeen hours; sac opened. Death followed seventeen hours after the operation, the vomiting having meanwhile persisted. At the autopsy, about eight inches of gut were found acutely inflamed, but the tract was quite pervious and free from constriction.

(To be continued.)

NOTES AND QUERIES.

He that questioneth much shall learn much.—*Bacon.*

No. 217.—Early Use of Anæsthetics in Surgical Operations.

If any of your numerous correspondents can explain the method of treatment alluded to in the following passage taken from Sylvester's translation of Du Bartas, the old French poet of the sixteenth century, it will oblige G. M. O.

> Even as a surgeon, minding off to cut
> Some cureless limb, before in use he put
> His violent engines on the vicious member,
> Bringeth his patient in a sense-less slumber,
> And grief-less then (guided by use and art),
> To save the whole, saws off the infected part, etc.

No. 218.—Gastrotomy Successes.

Wanted references to any cases in which recovery has followed the performance of gastrotomy for intestinal obstruction. The writer is acquainted with the records of three such cases, (Mr. Pring, Dr. Wilson, and Dr. Markland,) but will be much obliged to any one who can inform him where others are to be found. Under the term gastrotomy he does not include Amussat's operation. J. H.

14, Finsbury-circus, Sept. 19, 1857.

No. 219.—A Note from Baynard.

Men ought to be very just in what they publish and assert in that tender and nice concern of life; for all things in reference thereunto ought to be considered well and treated with the greatest caution; for there lies no writ of error in the grave, but the sick man is finally concluded by the knowledge or ignorance of his physician. But where knavery and neglect help to compound the doctor, there, I say, the patient is in a deplorable condition, more from his director than his disease; and too often in acute cases, where life and death perch upon the same beam, the least grain of error or neglect may turn the scale and irretrievably destroy that life which, on the other hand, a lucky thought might have saved. And I think it a duty indispensably incumbent upon the physician, that where he thinks he has not taken a right scheme of the case, nor had a true insight into the disease, or has the least doubt upon him; there, I say, both in honour and conscience he is bound to call in some other to his assistance, which is so far from being a disgrace that his care will be (among wise men) esteemed as the product of his honesty; and howsoever Providence should dispose of his patient, yet by this faithful discharge of his duty he enjoys the comfort of a calm breast and sleeps with a quiet mind. When, on the other hand, the forward, bold, positive *Corinthian thruster on*, swollen with the poison of his own opinion, as if he were the acme and top branch of his own Profession, right or wrong, goes on; but for want of aim or a steady hand hits the wrong mark, and kills the patient instead of the disease, which no more troubles him than if he had fired at a flock of geese.

And here I am apt to think that the invention of compounds was from not knowing the virtues of simples, supposing it like shooting at a bird with small shot; put into a gun pellets enough and one or other must hit. But true knowledge of a medicine is like the horseshoe stuck at a man's girdle (whose life was saved by it); quoth he, "I see a little armour will serve the turn if it be put in the right place."—Dr. Baynard, Psychrolusia, Fifth edition, 1722. J. D.

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Medical Times & Gazette.

SATURDAY, OCTOBER 10.

LOSS OF BRITISH TROOPS IN INDIA.

Year after year it has been our lot to show how much greater is the loss of our forces, both on sea and land, by disease than by the sword. Year after year we have shown how large a proportion of the loss by disease is preventible. We have proved how the site of encampments, the barrack accommodation, the food and clothing of the soldier, his habits of life, and various other causes, affect his mortality. We have demonstrated the terrible losses which have resulted from the neglect of the warnings and remonstrances of Medical Officers, and have repeatedly enforced the moral, that more power must be given to Medical Officers if we wish to preserve the health of the soldier. The Indian mutinies recall us to the old story.

It will possibly be in the recollection of some of our readers, that in the year 1853 a discussion took place in the House of Lords regarding the decrement of European troops in India. On that occasion Lord Ellenborough drew the attention of his brother peers to the facts, that while one of Her Majesty's regiments in India disappeared altogether in the space of twelve years, the regiments of the Company passed entirely from the scene of their labours, either by death, removal, or invaliding, in the shorter space of eight years. From the statistics in the possession of Lord Ellenborough at the time when he made this astounding statement, his lordship drew a deduction which was, without doubt, indisputable. It has, in fact, never been denied, but it has been argued against him, that the statistics from which the deduction was drawn were made long antecedently—that they represented the year 1830 rather than 1853, and that the disproportion of losses was in modern times nearly if not entirely removed. The correction thus made removes, however, but little weight from the original statement. Later statistics still show a terrible picture of soldier dissolution from disease, and still point to the measures that are imperatively required before a standing European army can be maintained efficiently in our Indian dominions.

The epitome of the sanitary condition of soldiers in India at present, or until these last three years, is brief. From the years 1846 to 1854, the European force serving in Bengal, according to the able and accurate statistics of Surgeon Hugh Macpherson, sustained an annual loss of nine per cent of its numbers, or a gross annual average of 1759 men out of 19,517, and a total in the eight years of 14,072; and these losses were not by the sword or the rifle, but by disease. We might add to these particulars; we might follow in detail an Indian-European regiment through an eight years' service, and the result would only be the more striking; for in the absence of rebellion or hard fighting there is a natural disease decrement of Indian-European troops leading in some of the provinces to the entire absorption of a European regiment in from nine to ten, or at the extreme eleven years. This, at all events, has been the case in Bengal in times of comparative quiet; what is the state of things now, therefore, had better be left to the imagination of the reader than to any verbal description of the writer. Why does Havelock stop in his career of victory? Not from the sepoy. No; but from the sun and disease.

But apart from the fact of present emergencies, what is the great political fact to which the eyes of all Englishmen in or

out of Parliament are open? When India is re-conquered, what is next to be done? The thing is self-evident—she must be held as a conquered province, governed by military conquerors. British forces must be concentrated, and sepoy forces diluted. A standing European army of 100,000 men will long be the necessity. As far as sepoy insurrection is concerned, this army may rule in peace; but, as far as disease insurrection is concerned, how will such an army, without new sanitary organisation, support its own authority? What will be its losses?—what its term of renewal? We take no extreme view when we presume that the whole of the 100,000 men will require renewal every twelve years, or, in other words, that into the breach of her vast Eastern force England, as each year rolls round, must pour in her 8000 new men. We do not doubt that the resources of England would enable her to make this sacrifice, and to sustain it; but we do deny most positively the necessity of any such sacrifice. Sanitary science is indeed a sham and a delusion if it cannot prevent, or is not resorted to to prevent, so heavy a life-drain on this nation. It is not here mere prestige or national wealth that is concerned, but humanity, and our own flesh and blood.

How few of the brave fellows who are now on their way to India know that, if the past is to be the index of the future, the regiment to which they belong will entirely disappear in ten or eleven years at the utmost! How few know that before this time next year one-tenth of their number will have fallen by disease! How few among us think of the more rapid disappearance which may be effected after coming hard service! But all this must be thought of and provided for. We must have no renewal of Crimean blunders in India. The voice of the Medical department must be heard and obeyed. Our soldiers must fight no longer on the arid plains of Bengal in a dress adapted to a Canadian winter, nor be struck down by sun-strokes before Delhi for want of proper protection to the head. They must not be encamped on pestilential marshes because some obstinate General defies the Doctor. On all matters concerning the health of the soldier the Medical department must be endowed with power, not only to advise, but to act—not only to remonstrate, but to enforce obedience. In no other manner can we maintain a large European force in India.

THE WEEK.

The Regius Professorship of Medicine at the University of Oxford is now vacant in consequence of the death of Dr. Ogle, and it is of extreme importance during the present educational movement that the vacancy should be filled up by the appointment of some one who justly enjoys the confidence of the profession. We are glad to hear that the "favourite" on this occasion, both in the University and among the higher persons who have the appointment, is such a man. Dr. Acland is well known by his model memoir on the Cholera at Oxford, and as one of the chief movers in the introduction of physiological teaching in the cycle of modern education in the University. He has been for twelve years Lee's reader in Anatomy, and to carry out his teaching he has completed at Christchurch one of the best physiological museums in England. He has also been Radcliffe librarian, and has shown his liberal sentiments by throwing open the library to the townspeople, instead of confining it to the Members of the University alone. Those who attended the Oxford meetings of the British Association and Provincial Medical Association, will well remember his courteous hospitality at the Radcliffe Library on those occasions, and will therefore know that he is fitted for this high post in manner as well as in mind.

As the weeks pass on one veteran after another is removed from our ranks. Last week we had to record the death of Professor Ogle, of Oxford. This week Robert Keate has passed away. An octogenarian, he was one of the remaining links connecting us with the great ones of the eighteenth century. More than fifty years have passed since his election to St. George Hospital. He had long held a distinguished rank as an Army Surgeon. During many years he was an Examiner at the College of Surgeons, and for some time after he resigned that post remained on the Council. Since the death of Sir Astley Cooper he had held the honourable post of Sergeant-Surgeon to the Queen. His career is too remarkable to allow us to pass over his decease without more than a passing notice, but we must be content this week with the mere record of the loss the profession has sustained.

One of Mr. Griffin's characteristic letters will be found in another column, on a subject of great importance to Poor-law Medical officers. The Poor-law inspectors seem to think that the miserable pay of two-pence a visit is to include not only the performance of operations, but the payment of additional Medical assistance the Surgeon is compelled to obtain by the regulations of the Poor-law Board. This is a question which can admit of but one solution. If the Board insist upon additional Medical advice before certain operations are performed, they must assuredly pay for it.

We are threatened with cholera again, and nothing has been done even to commence the works of metropolitan drainage. The plan has not even been agreed upon. Meantime the Thames is more filthy than ever. The question is to be discussed at the Board of Works on the 14th inst., and we sincerely hope a little common sense may be infused into the debate. Hitherto the Board has only served to bring discredit upon the principles of self-government and representative institutions. Louis Napoleon would have settled the business in a month.

The German papers, and our correspondent, Mr. Laurence, speak of a novel application of the Electric Telegraph. At the late meeting of physicians and naturalists at Bonn, a letter of excuse was read from Humboldt, and, on the motion of the President, an answer was instantly flashed by telegraph, stating that all present had risen to testify their esteem and veneration for their old teacher; so that before the meeting separated the veteran traveller received the homage of his grateful pupils.

The last number of the British and Foreign Medico-Chirurgical Review contains a very elaborate and able article on Small-pox and Vaccination, and we are glad to find that many of the arguments which we have often employed on the subject of Vaccination are repeated in the pages of our contemporary. It is admitted that the legislative enactments passed from time to time by the British Parliament have failed in effecting the great object to be attained, namely the efficient vaccination of the public; and although a great number of Medical men are employed throughout the country in the performance of vaccination, yet from the fact that no special instruction in the operation is anywhere given, and from the absence of competent supervision, the full protective powers of vaccination against small-pox are scarcely attained. In common with ourselves, our quarterly contemporary laments the absence from Parliament of any representatives of the Medical Profession, while all other classes of society are duly represented; and the eccentricities of a late senator and *quasi* member of our Profession, who distinguished himself

by his virulent opposition to the precepts and practices of Jenner, are recorded with regret. The reviewer recommends that the practice of vaccination should be disconnected from the administration of the Poor-law Board, and transferred to the control of the Board of Health; and that this Board should be responsible to Parliament, through its President, *who should be a Medical man.* The officers of Health in the different districts should inquire into the progress of vaccination in the community, and general inspectors of the operation should be appointed, with adequate salaries, in England and Wales, Scotland and Ireland. We need not state that all those positions have our hearty concurrence.

If past experience is to be trusted as a lesson for the future, we cannot fail to learn that we are threatened with another invasion of Cholera; and that it will arrive, as it did on both its former attacks, from Hamburg. Between the 29th of August and the 6th of September there were 239 cases, of which 136 proved fatal. We have not received later accounts of the exact number of cases and deaths, but we have been informed that the mortality has been very large. Dr. Webster, in his late Northern tour, followed in the track of the pestilence from Königsberg westward. He describes the severity of the epidemic as extreme. At Upsala the University had been closed, and many of the inhabitants had fled. The Board of Health, then, is certainly not premature in issuing a circular of precautionary advice to Local Boards of Health. Cleanliness, ventilation, pure water, are the great objects—the Public Health Act, the Nuisances Removal Act, and the Common Lodging-House Act, the means of effecting them. We trust that all will join cordially in assisting the Local Boards to exercise their powers to the fullest extent, in the hope of meeting the common danger; and, as an additional precautionary measure, we trust that the most stringent instructions will be given to our Custom-House authorities to prevent a direct importation of the disease. We are perfectly aware of all the arguments against quarantine and the contagiousness of cholera; but we still think that it would be a most culpable piece of neglect and infatuation to admit cholera patients arriving from Hamburg or elsewhere to unrestricted intercourse with the inhabitants of any of our ports.

The Medical Officers of the Dispensary districts in the principal unions of the South of Ireland have established a new society, or Medical Protective Association. The objec is to protect the interests of the Medical officers against the persevering efforts of the Guardians to effect a further reduction in the present low salaries. We heartily wish success to this new society. Guardians may obtain a little temporary popularity among the rate-payers by their false economy, but the public must learn before very long that it is a most mischievous system, which tends to the denial of efficient medical attendance to the sick poor.

We have but little to add to the remarks we made last week on the charge of procuring abortion made against Mr. Delves, of Tunbridge Wells; but we may repeat our conviction that this charge is one which is refuted by the evidence of the girl herself, and certainly is not supported by the very extraordinary statements of Dr. Cooke. One point of interest in the case has been commented on by Dr. Snow, who remarks very justly, that "the effect of a narcotic draught, sufficient to produce insensibility to the pain of the alleged operation, would last many hours." It is clear, from what the girl said, that chloroform was not given by inhalation; and Dr. Snow adds, that in the few recorded instances in which chloroform "has been swallowed in such quantity as to cause insensibility, the insensibility was of long duration, and was attended with alarming, if not fatal symptoms." There can be but one opinion as to the course which has been taken of publishing the letters of Medical men respecting this case in the local papers; and we are not surprised to hear that legal proceedings have been commenced by Mr. Delves against the supposed instigator of the attack upon his character.

REVIEWS.

How to work with the Microscope: A Course of Lectures on Microscopical Manipulation, and the practical application of the Microscope to different branches of investigation. By Lionel S. Beale, M.B., F.R.S. Professor of Physiology and General and Morbid Anatomy in King's College, London. Pp. 124. London: 1857.

The use of the microscope is invaluable in the prosecution of innumerable branches of natural science, and its modern improvements have afforded increased facilities for such investigations. The possession and exhibition of microscopes has also become fashionable; and many who are mere amateurs in science pride themselves upon the elaborate and expensive nature of their instruments, or the curious structures which they reveal to the eye. But the student requires to be informed, in the first place, that a microscope, to be good and efficient, need not be expensive; and, in the second place, that the object of the instrument is not merely to please the eye, but to instruct the mind, and to assist in the exploration of the works of nature. Many still regard it only as an ingenious toy, while some imagine that it possesses the magic power of revealing all the secrets of creation, without any trouble on the part of the observer. The fact is, that the microscope is only a means to an end; and, like the stethoscope, it creates nothing, but merely assists us in examining what already exists. In order, therefore, that the instrument should be employed with advantage, it is necessary that whosoever uses it should have a sufficient degree of education to enable him to understand what he sees, and to avoid the errors of inaccurate observation and hasty generalisation. The number of microscopists is at present very large, that of original discoverers is very small; while crowds of imperfect observers have rushed into the arena of science, to the no small discredit of philosophy and the retardation of truth. Nor can it be denied that the difficulties attending the path of the original investigator of minute structures by means of the microscope are really very great; for in proportion to the diminution in size of the objects, and the increased magnifying powers of the glasses, do numerous sources of fallacy inevitably present themselves, which may tax or even baffle the powers of the most acute intellect.

"The eye of the observer," remarks Dr. Beale, "requires much careful education before he is able to appreciate fully the character of the structure which he is examining. If upon examination a specimen does not appear to him to justify the description or delineation which some observer has given of a similar stricture, he must not too hastily infer that the author has been recording the results of his imagination, rather than observed facts. We must remember that the conclusions which have been arrived at are probably the result of a very long and patient investigation, deduced from examining a specimen under very different circumstances, after the application, perhaps, of various chemical reagents, and after ascertaining the effect of different refractive media. . . . . Some fall into an error of the very opposite description, not less detrimental to forming habits of correct observation. Led away by their imagination, they think they see everything which has been delineated or which they have heard described; the observations of authors are confirmed in expressions closely resembling the original, and thus, in point of fact, their own testimony is brought forward, though not directly by themselves, a second time in favour of their original doctrines, without any real confirmation of the accuracy of their views being advanced. In this manner errors have been propagated and strengthened to an extent almost incredible, and years of laborious investigation have been spent in overthrowing statements which had never resulted from actual observation in the first instance."—P. 97.

Dr. Beale's book contains, in a small compass, a great

amount of useful information to all who are desirous of making themselves practically acquainted with the manipulations of the microscope. It does not pretend to give the same amount of information as to the construction of the instruments, the principles of optics, and the nature of the objects to be examined, which are to be found in more extended treatises; but it contains a great number of details upon matters apparently minute, but really most important, which are not to be found in the larger books. The first lecture contains a brief account of the simple and compound microscope, the names and addresses of the principal English and foreign makers, and the modifications introduced into the construction of the instrument for special purposes. The second lecture describes the methods of examining objects by reflected, transmitted, and polarized light, together with rules for drawing microscopical specimens, and for measuring objects. The third describes the instruments required in microscopical research, the apparatus used for examining objects, and the solutions employed for preserving specimens. Among the latter, it may be useful to know that the Government has lately permitted the use of methylated alcohol for scientific purposes without duty, and that this spirit answers very well for preserving anatomical preparations. Glycerine is also highly commended for preserving many structures, and may now be obtained in great purity, and of great specific gravity. The fourth lecture treats of the methods of making cells for preserving microscopical preparations. In the fifth lecture the general nature of the tissues of animals and plants is briefly described, and the methods of preparing them for examination is carefully pointed out; and Dr. Beale urges the necessity of examining the same objects in various ways, because very different appearances are presented according to the media in which bodies are placed. The sixth treats of the examination of tissues, and of their preservation as permanent objects; Canada balsam being still much esteemed and employed for the purpose. In the seventh lecture the different processes of injecting specimens are described, with the instruments required for the purpose. The eighth treats of the important subject of the use of chemical reagents in microscopal investigations, many objects being altered in colour, consistence, and other respects, by chemical solutions. The list of these fluids is a small one, and comprises only ether and alcohol, acetic acid, nitric acid, chromic acid, solutions of potash and soda, ammonia, nitrates of baryta and silver, oxalate of ammonia, and solutions of iodine. It is recommended that these should be kept in small tubes with capillary orifices, from which only a drop, or a part of a drop, can be expelled when required. At the end of this chapter Dr. Beale notices some of the fallacies to be guarded against in microscopal investigation; and to avoid compounding extraneous or accidental structures with the specimens under examination, he recommends a thorough acquaintances with the microscopic appearances of several common objects on the part of the observer, before any original researches are attempted. The chief objects to be thus examined are oil globules and milk, starch and bread crumbs, portions of feathers, and worsted, fibres of flax, cotton, and silk, human hair, cat's hair, and hair from blankets; fibres of wood swept from the floor, fragments of tea-leaves, hairs from plants, vegetable cellular tissue and spiral vessels, and particles of sand.

These and similar warnings will be found of great advantage to the student, and indeed to the microscopist of all ages: and we confidently recommend Dr. Beale's work to all those who wish to obtain accurate results from the use of the microscope, and by its means to enlarge the boundaries of natural science.

New Scientific-Journalists' Club at Paris.—At the suggestion of M. de Castelnau, editor of the *Moniteur des Hôpitaux*, a club has been started at Paris, consisting chiefly of the editors of and contributors to the medical and other scientific journals. A reading-room is to be provided, having the French and the best Foreign Scientific journals: and weekly conversaziones are to be held, at which scientific questions are to be discussed, and to which *savants* and inventors will be invited, who may wish to make known the results of their lucubrations. Men of science and medical men who have published works are eligible; and several of these have joined the institution. The subscription is to be 30 francs, with an entrance fee of 5 francs.

PROGRESS OF MEDICAL SCIENCE.

Selections from Foreign Journals.

ON THE USE OF CHLOROFORM IN CERTAIN FORMS OF PARALYSIS.

By M. LANDRY.

M. Landry terminates a long series of papers with the following conclusions:—1. There exists a group of paralyses of the motor powers, offering the following general characters. There is preservation of muscular irritability and of the excitability of the nervous trunks, integrity of muscular nutrition, and absence of reflex motion, of spontaneous convulsive movements, of contractions, of fibrillary contractions, and of trembling in parts actually deprived of voluntary motion. 2. In this group may especially be ranged hysterical paralysis and sympathetic paralysis, generally confounded together under the common denomination hysterical. 3. Some of these paralyses disappear during sleep, and immediately yield to the action of chloroform (probably also of ether) and narcotics. Others undergo no modification under such influences. 4. The former appear to belong to the category of sympathetic paralyses; the latter to that of hysterical paralysis, properly so called. 5. These phenomena constitute a means of diagnosis of true hysterical paralysis. 6. They serve to distinguish in all cases the paralyses in which they are observed from those which are dependent upon organic, nervous, or muscular lesion. 7. Narcotic and anæsthetic agents may be employed in the treatment of paralysis, whether as curative agents, palliatives, or simple auxiliaries.—*Moniteur des Hôp.*, No. 55.

OBSERVATIONS ON VACCINATION.

M. Blache communicated to the Paris Hospitals Medical Society the particulars of a recent curious instance of prolonged incubation of vaccinia. A young lady was vaccinated without any result, and she crossed over to England. More than a year afterwards, the vaccine eruption went through all its stages in a completely normal manner, under the supervision of a distinguished English practitioner. M. Blache knows of cases of six weeks' incubation, but never heard of one like the present. M. Legroux took the occasion of mentioning the results of his vaccinations at the Hôtel Dieu. It having been observed that women frequently returned to the hospital soon after confinement, their infants having contracted the small-pox, he has been of late in the habit of vaccinating infants born there when only two or three days old. Enormous pustules with deep ulcerations and delayed cicatrization have been the results. Successful vaccination was, however, performed with these pustules taken on the 15th day. M. Blache observed that he has frequently vaccinated healthy new born infants in four places without any ill effect; but on vaccinating unhealthy infants at the Cochin hospital he has met with the same ecthymatous pustules and ulcers, running together, as described by M. Legroux. M. Hervez de Chegoin believed the conditions observed by M. Legroux depended more upon the vaccine lymph than the age of the infants. Very similar results followed the employment of the virus discovered among the cows at Passy. M. Gilette had met with a case in which large ulcers menaced the life of a child that had been vaccinated at the Maternité very soon after its birth. M. Hervieux believed that the accidents noted by M. Legroux may be due to the development of the lymphatic system in the infant. The frequency of angioleucitis, adenitis, sometimes going on to axillary abscess, complicating vaccinations, supports this view. M. Legendre observed that adenitis is no complication but a constant phenomenon of vaccination.—*Union Médicale*, No. 5.

ON MUSK IN ATAXIC PNEUMONIA.

By Professor TROUSSEAU.

M. Trousseau recently directed the attention of his class to the great utility of musk in cases of ataxic pneumonia, as employed by Recamier. The condition of ataxia supposes a predominance of nervous phenomena out of all proportion to the amount of lesion present. Perhaps during an epidemic of mild pneumonia the great majority of cases will exhibit no remarkable nervous phenomena; but one of the individuals,

in whom, however, the local lesion is of no great extent, becomes, during its early stage, the subject of a violent delirium. The pulse and respiration may in some cases become proportionally accelerated; but this is far from being always so; for in the case of the woman who gave occasion to these remarks, while the pulse numbered 84, the number of the respirations was 88; exhibiting a marked want of harmony between functions that should be always correlative, the number of respirations in the normal state being a third of that of the pulse. Moreover, the woman was delirious and agitated beyond measure on the second day of the affection, when only a slight crepitant râle was present.

These ataxic disorders are especially observed in women, who are more liable than men to nervous disturbances, in persons given to drink, in certain phlegmasiæ, and after severe injuries. In ataxic conditions appearing under any of these circumstances, musk becomes a valuable agent. It is not to be understood from this that musk can properly be given in any case of pneumonia, scarlatina, or variola, accompanied by delirium; its utility is limited to those cases which, without important local lesions, are accompanied by exaggerated nervous phenomena, and in these it possesses a remarkable regularizing power. There are several kinds of delirium met with in pneumonia. 1. The delirium which depends upon the intensity of the pneumonic fever, and which proves only that the brain participates in the febrile action like the other organs. It is seldom met with except at night, as the patient is about to slumber, and is seen in all acute diseases with fever. Here musk is not indicated, for it exerts no power over the pneumonic inflammation as such. 2. Delirium connected with suppuration of the pulmonary parenchyma, and probably of the same nature as that met with in purulent infection. It is almost always fatal, and musk is of no avail. 3. Delirium caused by inflammatory complications situated elsewhere than in the chest, and sometimes misunderstood by the Practitioner. 4. Delirium depending more upon the malignity of the cause of the pneumonia than upon the pneumonia itself. It is found in pneumonia which results from poisoning, whether caused by articles of the materia medica, or morbific miasmatic emanations, or engendered within the economy itself. Here the pneumonia and the delirium are the effects of the same cause; and examples are observed in pneumonia complicating putrid fever, acute glanders, and in acrid poisoning. Here musk is of no use. 5. *Sub delirium*, with want of harmony among the different symptoms, and a predominance of the nervous ones out of all proportion to the pulmonary lesion. This ataxic state becomes aggravated under the influence of antiphlogistics and antimony, while musk is of the greatest service. In the present case there was great want of sleep, and opium was combined with the musk. M. Trousseau gives the musk in three-grain doses every hour until the effect is produced. This is usually in eight or ten hours at the latest, after which time we must expect no benefit, as the effects when produced are always prompt.—*Gaz. des Hôp.* No. 44.

EXCERPTA MINORA.

Retention of Pistol Balls in the Chest for a long period.—A man, a murderer, shot himself eight years since, pointing the pistol to the region of the heart; its muzzle becoming, however, somewhat raised as he discharged it. Great emphysema of the walls of the chest at once followed, which was succeeded by "entire flatness on percussion of that side." After a severe illness he recovered, and in after years nothing remarkable beyond a constant dry cough was observed. He died suddenly. No disease of the heart, besides some valvular thickening, was found; except a cicatrix in the upper lobe of the left lung showed distinctly the track of the balls, which having passed through that organ had become lodged in the walls of the chest. From this they were undergoing detachment, and were found hanging from the side of the chest, like cherries from a tree, carrying the pleura before them.—*Boston Journal*, vol. lvi. p. 420.

Muriated Tincture of Iron in Catarrh of the Bladder.—Dr. Plagge states that he has had repeated opportunities of confirming the statement made by Dr. Lange, of the great utility of tr. ferri mur. in catarrh of the bladder and chronic hæmaturia.—*Berlin Med. Zeit.* No. 29.

Long Funis.—The funis of a fœtus twenty weeks old, and seven inches and a half long, measured twenty-four Rhenish inches, the fœtus being completely enveloped in the funis.—*Berlin Med. Zeit.* No. 29.

GENERAL CORRESPONDENCE.

POOR LAW MEDICAL REFORM ASSOCIATION.

To the Editor of the Medical Times and Gazette.

Dear Sir,—I shall feel obliged by your inserting at length the accompanying letter, as it has many points of importance to the Poor-law Medical officers. During the last session of Parliament, Lord Elcho, at my solicitation, kindly moved for certain returns. The queries are now in the course of circulation, and I trust my brethren will see that they are correctly filled up, as upon the replies will depend the success or failure of our agitation for redress of grievances.

I hope my Medical friends will not forget their mite towards the testimonial now raising for our Irish brother, Dr. M'Carthy of Kenmare. I shall be happy to send a copy of his eloquent address to any gentleman who may desire to have one. Subscriptions of 5s. may be forwarded to Charles Hewett, Esq., M.D., Patrick Hill, Cork.

I am, &c. RICHARD GRIFFIN.

12, Royal-terrace, Weymouth.

12, Royal-terrace, Weymouth, Sept. 29, 1857.

My Lords and Gentlemen,—During many months I have been attending a poor woman named Packet, who had ulcerations of the integuments of the knee, and, latterly, dropsical swellings of the joint. A few weeks since, the sores having all healed exeept one, she felt able to visit a relative in the country, and went thither in a waggon on a wet day, and caught cold, which induced inflammation of the joint, and subsequently the bursting of the dropsical swelling. Through the ulcerated opening constitutional disturbance threatening her life was immediately set up, which rendered it necessary to be prepared to perform an operation at any moment. I, therefore, under the head "Observations," made the following request in the district medical relief book:—

"August 24th.—An operation may be required; shall therefore feel obliged by an order for three Medical men to assist, but it will not be used unless actually necessary."

The Board of Guardians thereupon ordered the relieving officer to furnish the required assistance when desired.

On Sept. 21st, Mr. Inspector Gulson attended the Board, and appended the following note to my request:—

"Art. 178 of the Regulations provides that the Medical Officer shall, at his own cost, obtain the advice of some Surgeon or Physician before performing an amputation, and the fee provided by Art. 177 is understood to cover and provide for such assistance as the Medical officer may require in the performance of the operation in respect of which the fee is made payable. "C. GULSON."

In consequence of this note I am deprived of the requisite assistance to perform an operation, should one be required, which I fear will be the case before long, though I am doing my utmost to save the limb. Art. 178 says—"Except in cases of sudden accident immediately threatening life no medical officers shall be entitled to receive such remuneration for any amputation, unless he shall have obtained, at his own cost, the advice of some Member of the Royal College of Surgeons of London, or some Fellow or Licentiate of the Royal College of Physicians of London before performing such amputation, and unless he shall also produce to the Guardians a certificate from such Member or such Fellow or Licentiate, stating that in his opinion it was right and proper that such amputation should be then performed."

This article was evidently intended to prevent a limb being removed without due consideration, and nothing further. Your own instructional letter declares what the fee is for: "The payments for operations are limited to operations on out-door poor, and do not include those performed in the workhouse. It appears to the Commissioners that the constant attendance at the house of the patient in severe surgical cases usually forms the most burthensome part of the extra services of the medical man. Whereas the constant visits of the medical officer to the workhouse enable him to attend a patient in the workhouse without always making a visit for that express purpose."

Art. 179 corroborates the foregoing. "Provided always, that if in any case the patient has not survived the operation more than thirty-six hours, and has not required and received

several attendances after the operation by the Medical officer who has performed the same, such Medical officer shall be entitled only to *one-half* of the payments respectively prescribed above."

These quotations evidently prove that the extra remuneration for amputations is not for the performance of them, but for the advice and certificate of another medical man *before* the operation, and for the "constant and burthensome attendance" *afterwards*. I therefore entreat your honourable board to allow me the assistance actually required to enable me to perform the operations should it still be deemed necessary.

Art. 177 distinctly says, "No salary of any district medical officer shall include the remuneration for operations and services of the following classes performed by such medical officer in that capacity for any out-door pauper, but such operations and services shall be paid for by the Guardians according to the rates specified in the article," &c. &c. Notwithstanding this article, which is of the most positive description, I am not allowed the fees mentioned therein, the Guardians insisting that my miserable salary of 1s. 3¾d. per case shall include the performance of operations; and Mr. Gulson now says it shall pay for assistance also, because, forsooth, former Medical Officers consented to commute the extras for a fixed salary, when they were annually elected and were afraid of dismissal at the end of the year if they refused to do anything, and did not comply with every thing the Guardians desired of them. I respectfully submit that this commutation should never have been sanctioned by your Honourable Board, and ought now to be reversed in the case of those officers, at least, who were not parties to it. See the result of it in my case: here is a poor woman who has been under my care from July 25, 1856, up to this day, September 29, 1857; I have already paid 109 visits to her house, which have caused me to walk more than 109 miles; I have given her 72 bottles of medicine, 42 bottles of lotion, one bottle of liniment, three boxes of ointment, four boxes of pills, besides a quantity of adhesive plaster; and if Mr. Inspector Gulson's views are correct I am now called upon to pay one guinea each to three medical men, at least, to assist me to amputate or resect the joint, as may ultimately be determined, as my colleagues are not bound to give their valuable time gratuitously out of their districts—in addition I shall have to attend the patient some months longer. The world would probably fix a remuneration for these important services at not less than £50, and think it a reasonable amount; but you, my Lords and Gentlemen, have allowed the Guardians to decree that I am to have no extra pay; that skill, labour, and expense, are all to be included in the munificent sum of one shilling and three-pence three-farthings—the proportion my niggardly salary allows for each case I am called upon to attend.

The terms of the advertisement on which I was elected are as follows: "The above-mentioned salaries to include the supply of all medicines and medical and surgical appliances, together with the extra fees for midwifery cases, fractures," &c. As this paragraph says nothing about assistance, allow me to quote your letter to the Guardians, 28 January, 1857, as it bears on the point. It alludes to a case of consultation rendered necessary by the district medical officer stating that he "could do no more for his patient."

"On referring to Art. 215, No. 3, of the general consolidated order of the 24th July, 1847, the Guardians will observe that it is the duty of the relieving officer, in any case of sickness or accident requiring relief by medical attendance, to procure such attendance by giving an order on the district medical officer, or such other means as the urgency of the case may require. The Board think that, looking to the duties of the relieving officer as prescribed by this article, it was competent to him to adopt the course which he pursued. The Board, therefore, direct me to inform the Guardians, they are of opinion that he (Mr. Griffin) is entitled to be remunerated for his professional services, which by the authority of the relieving officer, acting on behalf of the Guardians, he was called upon to render in this case." In this letter you recognise the principle that where the district medical officer requires assistance, the relieving officer is justified in providing it.

I cannot do impossibilities. I cannot administer chloroform, attend to the tourniquet, hold the limb and amputate at the same time, and subsequently take up the arteries and tie them; I require assistance, otherwise the life of my patient must be sacrificed. I therefore pray you will, without delay, instruct the Guardians to direct their relieving officer to furnish me with the aid required.

Since June, 1855, I have addressed many letters to your Honourable Board, complaining of the inadequacy of my salary to the duties I have to perform. You have generally promised they shall receive your attention or consideration, but in your last reply a simple acknowledgment of my letter was alone vouchsafed.

With your extensive correspondence the complaints of a poor Union Medical officer are probably little heeded at the time and are soon forgotten; I will, therefore, just reiterate, that I was elected one of your officers in March, 1855; that my predecessor during the last year of his office recorded 642 cases, for which he received £110, or 3s. 5d. per case; when I accepted my appointment I expected a remuneration per case to the same amount as that paid to him; judge, then, my surprise on discovering that my average payment for two years realised only 1s. 4½d. per case; during the last half-year it has been rather less, as in that time I have attended 304 orders, for which I shall receive only £17 10s., while my predecessor had for the same number £52 2s. 1d. I have also performed an operation of some importance—resection of the elbow-joint of a woman, aged 29—thereby saving the arm, which is every day becoming more useful to her, instead of removing the limb, and rendering her chargeable to the parish for life. The trouble and expense of this case has been considerable, and it has been under treatment many months; indeed all the sores are not yet healed. For this case I get nothing more than the 304th part of £17 10s., or 1s. 1½d. Compare this with the payments made to my colleagues, who have not performed any operations of importance during the last two years and a half (excepting in one instance tapping a woman), while I have had to amputate a limb above the knee, remove part of a hand, a tumour of importance from a child's side, resect an elbow-joint, and operate for strangulated hernia. One gentleman has a salary that gives him 2s. 6½d. per order, a second 4s. 11½d., and a third 14s. 7d., while I have but 1s. 3¾d. My Lords and Gentlemen, I pray you will no longer permit me to be thus cruelly misused. The poor rates of the country, as well as the payments from the consolidated fund, ought to be impartially, and not, as they are in my case, capriciously administered. On remonstrating privately with two Members of the Board of Guardians on the iniquitous treatment I receive, one replied, "I cannot help it; we are mere automatons; the Board above rules all." The other said, "Fixing the salaries rests with the Poor-law Board, and not with us." This bears out the belief I previously expressed, that the law has entrusted to your honourable Board the power to regulate our salaries. (See 4 and 5 Will. IV. c. 76. sec. 46.) I entreat you, therefore, to remove the oppression under which I groan, and which I do not deserve. The only charge that can be brought against me is, that I seek a reform of the abuses that exist in the Medical department of the Poor-law. I desire only that the Poor-law Medical officers may be enabled to do their duty to the four millions of the labouring classes entrusted to their care. We live in an age of reform,—the Government of the country is called a reform Government,—the existence of your honourable Board sprung from reform,—surely, then, I ought not to be persecuted for humbly endeavouring to follow in the footsteps of the great men of this age. I beseech you to uphold me by giving me a salary commensurate with the duties I have to perform. If you cannot do this, I beg you will say so, that I may lay my case before counsel, and ascertain if it is probable the Court of Queen's Bench can afford me any redress. If not, I will then present an humble address to her Majesty in Council, and pray she will graciously be pleased to grant me assistance, that I may do my duty to her poor without robbing my family.

I have the honour to be,
My Lords and Gentlemen,
Your most obedient servant,
RICHARD GRIFFIN.

The Poor-law Board.

CHLORODYNE.

[To the Editor of the Medical Times and Gazette.]

SIR,—In reply to an inquiry made by your correspondent, who subscribes himself "Nota Bene," whether any cases of benefit from "chlorodyne" have come to the knowledge of your readers, I beg to say that I have been greatly pleased at

the results in a case of severe pain of the hip-joint and in the vertebræ of the neck, which came on in a man long subject to chronic rheumatism, attended with permanent enlargement of the knees, ankles, and one of the wrists. He could not tolerate opium, hyoscyamus, or velladonna, and, in despair almost, I gave him a prescription for a mixture of chlorodyne in water, the dose being twelve minims. He only took two doses, which acted so well that he compared his feeling's to being transported to Paradise. The effects lasted for several days. Whenever his pains return he now takes a dose at bedtime, feeling secure of an escape for some days from suffering. I have also applied it locally, with good results, but in too few cases to report much on it. It produces a certain amount of warmth and perspiration, with a remarkably soothing state of mind, as well as arresting the pain. No headache or other unpleasant symptoms followed its administration.

I am etc.

Thos. A Henderson, M.D. L.R.C.P.
Physician to the Ramsgate Infirmary,
The Vale, Ramsgate, Sept. 23, 1857.

TYPHOID FEVER ON THE ANDES.

[To the Editor of the Medical Times and Gazette.]

Sir,—I have just perused in the Edinburgh New Philosophical Journal, vol. vi. No. 2, October 1857, the continuation of Dr. H. C. Lombard's article on Mountain Climates, considered in a medical point of view. At page 149, he observes, "With regard to typhoid fever, though it appears, according to Dr. Tschudi, to be rare among the Cordilleras, it is unfortunately not so among our Alps, where it prevails at all elevations."

Lest any one should thus be led to believe that elevation on the Andes should be a protection against typhoid fever, it is only necessary to record in the pages of your Gazette, that in the year 1855-6 the most sweeping epidemic, under the type of a *Typhus Maculosus*, overran the inter-Cordillera valleys of the Andes; especially the thickly peopled provinces of Puno and Cusco. This epidemic was called "Peste," and by the Peruvian official returns of General Cartilla (the President) carried off 250,000 individuals, of whom the far greater part were Indians, who were attacked and died of it on their native heights, of ten and eleven thousand feet above the level of the Pacific.

While the Sierra, or Andine heights, were thus enormously depopulated by typhus, the coast had been still scourged by the continuance of that yellow fever, which, for the first time in the medical annals of Peru, broke out at Callao and Lima in 1852, as I have already reported in the *Edinburgh Medical and Surgical Journal*, vol. lxxxii. No. 203, April 1855.

In 1854, an inland epidemic raged at Llumpa and Masqui, situated in the Sierra of Concheos; but by report it was supposed to be akin to cholera; and there is no evidence to lead us to suppose that this had any connexion with the typhoid epidemic of the following year. But what I would here remark as most interesting in regard to the influence of elevation and climate on diseases of the human species, is, that as far as can be collected from general report, or the medical correspondence I have had on this subject with a resident physician of Lima—Dr. Don Miguel de los Rios—the peste of the Sierra of Peru (which, I believe, has since spread to Bolivia)—proved to be essentially of the same origin as, or an off-shoot of, the pestilential yellow fever of the coast.

From all I can further collect on the subject from communications with friends in Peru, it appears that the yellow fever germs were introduced from the coast, to the temperate and more thickly-peopled Indian villages of the Sierra, by the usually frequented lines of intercourse. But not finding there the fitting conditions for their full development in the form of yellow fever and black vomit as on the coast, they underwent a modified elaboration in the human frame, and spread abroad in the form of a most deadly typhus. At any rate, whether the transition from yellow fever to typhus under the influence of elevated Andine (but still temperate) climate be demonstrated or not by the future history of this epidemic, one fact remains settled, and that is, that typhoid fever, in its most aggravated form, has desolated and depopulated to an almost unprecedented degree the temperate valleys and villages situated between the great Eastern and Western Cordillera chains of the Peruvian Andes.

I am, &c. Archibald Smith.
2, Manor-place, Edinburgh, Oct. 3, 1857.

INCURVATION OF THE TOE NAIL.

[To the Editor of the Medical Times and Gazette.]

Sir,—In your Number for September 19 is a communication from Mr. J. C. Wordsworth, describing an operation which he is in the habit of performing for the cure of that very troublesome and painful affection, incurvation of the toe nail.

Although unquestionably an improvement on the barbarous proceeding of forcible evulsion of the entire nail, as Mr. Wordsworth employs force to detach the divided nail, and deems chloroform a necessary preliminary, his mode of operating must still be attended by considerable pain. I am induced, therefore, to forward you the details of a method of removing the divided nail, which I have practised successfully for many years, and which may almost be termed a painless operation.

One-third or more of the nail, from its matrix to its free edge, is first divided by a succession of cautious strokes, with a small stout narrow-bladed scalpel, to avoid wounding the subjacent corium. The knife used for the subcutaneous section of tendons(a) is very well adapted for this purpose, and we may safely rely on the patient giving immediate notice when this sentient structure is reached. The groove through the nail being completed, its free edge is seized by a ciliary forceps, and separated by a few touches of the scalpel from the cuticle uniting it to the tip of the toe. The sheath of cuticle binding down its radical extremity is also raised with the point of the knife. It is easy, then, by a turn of the forceps, to evert the divided edge of the smaller portion of nail sufficiently to introduce the point of the scalpel horizontally beneath it, when, by scraping the under surface of the nail, its connexion with the corium is gradually severed quite up to the matrix, to which alone it should remain attached. A little gentle traction to and fro will now generally complete its removal, and should the process have been attended by any pain or bloodshed, it is commonly so trifling that the patients have invariably walked away, exhibiting scarcely a trace of the limp with which they entered.

During the growth of the new portion of nail I direct the patient to keep the end of the toe constantly protected by a dressing of some mild ointment thickly spread on lint, in order to soften the nail, and prevent it from becoming rugged, furrowed, and perhaps once more incurved.

I am, etc. Henry T. Chapman.
Lower Seymour-street, Oct. 3, 1857.

FOREIGN CORRESPONDENCE.

FRANCE.

[From our Paris Correspondent.]

Paris, 14 September 1857.

Dr. Jacubowitsch, who has published this year in the German language at Breslau, a treatise on the structure of the nervous system, has read at the Academy of Sciences the conclusion to which microscopical researches, continued more than four years, have led him. You will know by our medical newspapers the nature of the claims of that laborious anatomist about his discoveries in the histology of the spinal marrow, and of the cerebral nervous centres. The readers of the *Medical Times and Gazette* will judge by the account of the proceedings of the French scientific societies of the value of that new anatomy of the spinal marrow and brain. I have seen at the Society of Biology a great number of plates and anatomical specimens upon which Dr. Jacubowitsch lays the foundation of his system. They seem to me made with the utmost care, but they have not excited great curiosity from our first anatomists, Robin, Giraldes, Follin, and have not been the object of any discussion. It is generally

(a) See Little on Deformities, Fig. 122, a. p. 301.

believed in France, that the anatomy of the nervous system cannot be easily made in cutting through the nervous substance. The laborious researches of Legallois, Magendie, Foville, and the late experiments of Brown-Séquard, seem to bear conclusions quite different from those of Jacubowitsch. Many anatomical and physiological data have made us believe in a more complicated texture than that which is pointed out by the new German reformer.

The Academy of Medicine has heard during the two last meetings an interesting report and several speeches upon the contagiousness and the nature of yellow fever. The report was made upon a valuable sketch of the different epidemics of yellow fever in the French colonies of the West Indies, by Dutroulcau, lately chief physician in the navy. The different speeches were delivered by MM. Trousseau, Londe and Rufz. Those readers who are desirous to know the opinion of a good and learned physician upon the subjects in question will consult the valuable facts recorded by Dr. Rufz, who has practised for more than twenty years in the island of Martinique. The speech of Trousseau was eloquent, but wanting in good information and scientific data. None of the orators viewed the question in all its bearings; none of them spoke of the report presented by your Board of Health to the Parliament in 1853, upon quarantine and yellow fever. Such an oblivion is difficult to explain when, as you know, the English blue-book has been translated in French and distributed to all the learned societies of this country.

The Medical Journals of Paris seem to have the same indifference or want of knowledge about the question of the nature and of the contagiousness of yellow fever; none of them have examined the subject in a complete manner; none have shown to the Academy the deficiency of capacity of its orators in the question. The periodical press in such cases should inform the learned Societies that their proceedings are not upon a level with the actual state of science.

Since the beginning of this year several valuable theses have been made by the graduated students of the Faculty of Paris, upon the following subjects:—The diseases of Sénégal; the influence of hot climates on European constitutions; the Medical topography of the French station on the Western coast of Madagascar; the art of warming and ventilating buildings.

The author of the best thesis has well investigated the important physiologieal effects which result from breathing impure air, as also the effects produced by the various methods of heating buildings. The clever student has attempted in his essay to correct the extraordinary neglect with which this important branch of hygienic science has been treated in the lectures of the Faculty of Medicine. The three other essays are valuable accounts on some of the more interesting questions of Medieal topography. That our frame is incapable of sustaining all the vicissitudes of elimates is a fact sinee long known; but what are the limits of our capacity or incapacity of adaptation to different climates? such a question expects still an explanation. If natural history, as said Cabanis, wants a good physical geography, physiology and pathology want a good Medical geography. Till now little has been done in France to fill up the deficiency pointed out by Cabanis. Our Medical schools are in a great part the cause of that incomplete information about the diseases of tropical countries. Their leetures do not allude in any manner to a change in the symptoms and the nature of diseases according to the change of climate or of country; and Medical geography seems completely forgotten. We are happy to show that some students have gone this year beyond the lessons of their masters.

The Casual Poor and Bridewell Hospital.—On Saturday a deputation from each of the three City unions met at Bridewell Hospital for the purpose of inspecting it, and of personally ascertaining how far it could be made available for a central casual ward in the city of London, in the event of its being appropriated for such a purpose. It appeared that the governors were not unwilling to place it at the disposal of the City unions.

Royal College of Surgeons in Ireland.—Dr. James H. Sawyer, one of the Masters of the Coombe Lying-in-Hospital, has been elected Professor of Midwifery to the College, in the room of Dr. Beatty resigned.

OPENING OF THE MEDICAL SESSION.

INTRODUCTORY LECTURES.

LONDON HOSPITAL.

Mr. Wordsworth delivered the opening address. He said they were assembled that day to inaugurate the 73rd medical session of the college, and the occasion was one of deep interest to them all. To those who represented the students of days gone by this annual event restored many agreeable associations of their young life. They met once more their teachers and their comrades—they resumed their places, and in imagination lived again a short hour of their youth. To those of his young friends who had returned to their Alma Mater to resume their scalpels and their note-books, he trusted that day was equally welcome, and that they re-appeared fortified by robust health and firm resolutions to renew with re-doubled exertions their half-run race. But to those who had to commence their start in medical life that day was indeed one of surpassing interest and moment, for from that day they would chronicle the attainments which were to qualify them for the honourable position in society of the physician or the surgeon. That day would revert to them through life, as the real date of their professional career, and in all probability their success would hang on that day's resolutions to avail themselves of the great opportunities of the three sessions before them. Having dwelt with great effect on the errors which men frequently commit in selecting a profession for which they are disqualified, and which had done so much to impair the influence and dignity of the professions, both of theology and medicine, Mr. Wordworth proceeded to say, that in this land the ranks of the nobility had yet to be graced by the accession of the medical philosopher and philanthropist. It was yet the part of Britain to follow in the wake of civilised Europe. But though nobility was reserved for the successful speculator and the man of gold there could be no question that medicine afforded them ample prospects of distinction and of material rewards. The eminent in their profession enjoyed a position in public estimation inferior to no other. In life they were esteemed as friends by all men, and venerated in death as benefactors of the species. Much as he would deprecate a tendency to join their ranks as a mere road to fortune, he was unwilling to allow the Medical Profession to be divested of its extrinsic advantages. To him who obtained proficiency in its science and practised it with integrity and zeal, he would hold out as reasonable a prospect of a competency, perhaps of affluence, as could be promised to any other calling. He felt no sympathy for him who affected to despise the rewards of honest labour, or spurned the humbly born, for he who rose by inherent worth and talent into a higher grade was to be esteemed infinitely more than the mere inheritor of a name. In offering suggestions (all of which were of a valuable character) on the course to be pursued by the students in qualifying themselves for their profession, Mr. Wordsworth said that, during the three years they would remain there he trusted they would earnestly and assiduously avail themselves of all the opportunities which that splendid Hospital and College afforded them. They would soon perceive that the dissecting-room claimed their early and late attendance. Much of what they saw in the Hospital would be quite unintelligible to them for want of the knowledge which could only be acquired by careful and repeated dissection of the human body. Whoever attempted to learn anatomy in any other manner would grievously fail in his intention. It was unquestionable that a certain amount of information might be acquired from reading, by pictorial illustration, and by models; nay more, these aids would greatly assist, and indeed were indispensable in dissecting; for otherwise the student must fail in his attempt to accomplish the task of learning anatomy. It was much to be deplored that the practice of examining the dead was not universal in the Hospitals of this metropolis. Only let them imagine for a moment the retrocession science would at once make if the prejudice against it were so general as to amount to a prohibition. The loss to mankind would be incalculable,

for all the imperfections of their profession affected them much less than their patients. All they gained in knowledge was applied to the advantage of the living; all that they lost was to the cost of the sick and suffering. This subject was one worthy of public consideration, and he begged to commend it to the attention of the governors of the London Hospital. The lecturer adverted at some length to the necessity of acquiring a knowledge of chemistry, pharmacy, botany, and materia medica, as well as surgery, and midwifery, and then proceeded as follows:—With this imperfect outline of your studies, I commend to your keeping the reputation of this college. To those who have already reflected credit on this institution, I would only add a word of encouragement to continue the course which has obtained them honours here and will assuredly signalise them in their future career. To the recruits of to-day let me suggest their imitation of the examples of those who have won our esteem as students, and borne away with them our best wishes for their success as practitioners into all the quarters of the world. But medicine has much higher claims to the exercise of every means of its attainment than the honour and distinction of its disciples. It is ours to confer on society the deepest obligations in the ministration of our science; but he must indeed be inexcusable who recognises only this view of the subject. To us is confided the greatest worldly trust that man can impose on man; in our hands are placed the lives and health of our fellow-creatures. The magnitude of the trust surely demands our competency to undertake the task. What can more deserve the detestation of society than the assumption of such responsibility by those whose attainments are unequal to the occasion? What a wrong is inflicted on the helpless sufferer by being confided to such care! What misfortune to those who look to him for all that renders life dear to us! It is indeed our duty to be as well qualified for the varied demands of our Profession as our abilities and means can make us. Who can practise such a calling with pleasure and happiness, and be conscious that he is unequal to its exigencies? What can appease a conscience charged with the death of a fellow-being through ignorance or incompetence? Then, as you value your own happiness and hope to be the means of others' welfare, cherish a high sense of the importance of your Profession, and devote your best energies to its pursuits. It will afford you opportunities of doing good which are not consigned to any other calling, and its exercise will repay your labours with the most exalted feelings which can animate your hearts.

Mr. Wordsworth concluded his address amid a cordial burst of applause from the assembly.

MIDDLESEX HOSPITAL.

Dr. H. Thompson, who delivered the address here, desired that his remarks should be understood to apply to the younger pupils, upon whom he wished to impress the importance of the studies which they were about to commence. The lecturer then proceeded in a succinct manner to define the particular course of study the young men ought to pursue in order to possess themselves of a full knowledge of anatomy, by means of which alone the effects of disease on the bones and muscles could be ascertained. Anatomy was the foundation-stone of all medical science, and all students at the end of their course would have to undergo a strict examination upon that subject. It had been said that the subject of anatomy had been too much neglected of late. He did not think such was the case; at all events he considered it to be the first essential study connected with medical science. That which was next to it, and, in fact, alongside it, was the study of physiology, which was the life and death of the whole. Pathology was also a necessary study, and so long as it was kept within reasonable limits, and not allowed too much influence over other portions of the science, it might be cultivated. Chemistry was also absolutely necessary, as also a true understanding of the microscope in aid of physiology. With regard to chemistry, it was impossible to overrate the aid it had conferred upon Medical science; but still too much reliance should not be placed upon chemistry alone. The lecturer then proceeded to impress upon the students frequent and almost constant attendance in the wards, and on the delivery of lectures; for it was invariably the case that the best men were those who most frequently attended the lectures. He deprecated the students having recourse to the "grinders" to repair their own neglect. It would have been better for such persons that they had not come to the Medical school at all. A grinder could not inform them of the true phenomena of disease, and persons who availed themselves of such instruments would never have any real knowledge of their Profession.

CHARING-CROSS HOSPITAL.

Mr. E. Canton delivered the address. He said that, although he undertook the pleasing duty with diffidence when he considered how far more ably the enviable task could have been accomplished by either one of his colleagues, still he would yield to none in his anxiety to point out for the advantage of the students those circumstances connected with their present position in life which should on such an occasion be laid before them. The career which many of them were on the eve of commencing might be looked upon as a new era in their existence. They were about to set aside pursuits which had characterised their boyhood, and to undertake the responsible duty of devoting three years to the attentive study of subjects which would require for their mastery all the acumen they were possessed of, all the diligence they could bestow upon them. He would not enlarge upon the attractions of the Profession, but he should consider it his duty to place before them in review those various branches of knowledge with which they had to become acquainted ere they would be justified in undertaking the responsible office of Medical Practitioners. He would remind them that they must become thoroughly acquainted with the human body in a state of health before they could hope adequately to comprehend its condition in a state of disease, or to readjust the balance which was disturbed. By the study of anatomy and physiology they would be, as it were, arranging the foundation work on which was to be erected the superstructure of the art and science of medicine. Too great stress could not be laid upon an acquaintance with anatomy, both to the Physician and the Surgeon. It must be confessed, however, that from the latter was required a larger share of knowledge than from the former, inasmuch as the Surgeon had daily to deal with disease by operation, in which minutiæ were implicated, and which the Physician was not called upon so to treat. The Surgeon might be suddenly called to tie a bleeding artery, set a fracture, or reduce a dislocation, for all of which he was at once prepared, mainly through his knowledge of anatomy. The Physician undertook the treatment of a case of measles, rheumatism, or fever; and although his acquaintance might here seem to be of little value, they must remember that in the complications and sequelæ of these complaints his anatomical acquirements would be brought into requisition; so that, whichever course of practice the student might hereafter select, an acquaintance with the structure and arrangement of the human body would be highly essential. Although he (Mr. Canton) had adopted for a moment the arbitrary division, and spoken of the Surgeon and Physician as separate entities, students should leave the scene of their studies fully prepared to enter upon practice under either title, and especially should make themselves perfectly competent to combine the duties of both. In the study of anatomy they would be required to devote a large portion of their time to the dissecting-room, where they would not only be acquiring knowledge which was indispensable, but they would find themselves engaged in investigating a work replete with exquisite design, curious contrivance, mechanical arrangements, and marvellous adaptation of means to end—a masterpiece from that Omnipotent source whence all that emanated was perfect. With what truthfulness might they exclaim—

> "How complicate—how wonderful is man!
> How passing wonder He that made him such!"

In connexion with the study of anatomy and physiology, they should make themselves proficient in a knowledge of chemistry, and through this source learn the composition of those textures they had been at so much pains to disclose. In making themselves conversant with the structure and functions of the body in a state of health, they would have at the same time to study that deviation from it which was termed "disease," and likewise those remedial agents which were employed for its alleviation and cure. The art and science of medicine was divisible into the knowledge and

treatment of disease as it affected either the interior or the exterior of the body, and a distinction was hence made between the practice of medicine, which applied to the former, and that of surgery, which embraced the latter. These two subjects would have to be studied by attendance upon lectures, and by personal observation, surgery presenting so much which immediately met the eye—so much which was appreciable to the touch. There was, however, such a close relationship existing between the two, that it was often impossible to say whether a case belonged to a surgeon or to a physician; the fact was, it might belong to both, or in other words, practitioners should be equally prepared to treat it surgically and medicinally. For example, erysipelas might attack the head and face, and, as an external affection, require certain local applications; but its cause might be within the body, and internal remedies were necessary to aid in removing it. Again, a person in falling might fracture his ribs and be consigned to surgical care, but inflammation of the lung or its envelope supervening, the case, as far as the secondary affection was concerned, must fall under medical treatment. In the first-quoted instance the cause was within, the effect without. In the second, the cause was internal, the effect internal. In both cause and effect were co-existent—in the treatment of both medicine and surgery must co-operate. It would seem at a superficial glance that the surgeon had to practise his art in many instances without a knowledge of medicine being called into requisition; for instance, in the removal of a limb, the reduction of a dislocation, or the adjustment of a fracture; nevertheless, in either case irritative fever might supervene, constitutional remedies were required, and the aid of medical assistance was imperatively called for. He would wish, therefore, to impress upon the minds of the students the importance of devoting considerable attention to the study of the practice of medicine, however strong their predilection might be for the pursuit of surgery. Closely allied to the subjects of which he had spoken was the study of botany, a branch of medical knowledge too generally neglected by students. If they should be called upon to practise their profession in the country they would sometimes be expected to display a knowledge of botany, lacking which they might be considered, even though unjustly, ignorant even of important and strictly professional matters. Having mastered the subject as it bore upon medicine, they should pursue it as an instructive, an elegant, and a pleasing recreation, for

> "Not a tree,
> A flower, a leaf, a blossom, but contains
> A folio volume. We may read, and read,
> And read again, and still find something new,
> Something to please, and something to instruct,
> Even in the humble weed."

Having passed in review those branches of information with which the students were to become acquainted, Mr. Canton directed their attention to the inestimable value of that knowledge which was to be obtained at the bedside, and to the great desirability of accurate clinical notes. Having eloquently urged earnestness of purpose in the prosecution of study, he briefly adverted to the subject of attire. He cautioned them against an undue indulgence in external attractions, and warned them equally against lapsing into an error of an opposite description. It had often been said that extremes meet, and he regretted that too frequently the place of rendezvous was a Medical School. He furthermore cautioned the students against the assumption of eccentric costume, which, while it secured admiration from the illiterate and low-minded, would proportially remove them from a claim to the enviable epithet of gentlemen. The face, it had been remarked, was an index to the mind—dress, he believed, often presented an equally significant point of diagnosis.

Mr. Canton's lecture abounded with sound practical advice, which seemed to be heartily appreciated by the audience.

INDIAN CLOTHING.—Extract of a letter from a lady, dated Mussouree, August 9:—"We are very busy working flannel clothes for our army before Delhi. They are badly off for these things, and being so much exposed at such a season of the year, and in such a proverbially unhealthy locality, and fighting as they have done so nobly, they really deserve to be provided for by us."

OBITUARY.

DR. OGLE, REGIUS PROFESSOR OF MEDICINE AT OXFORD.

Dr. James Adey Ogle, Regius and Aldrichian Professor of Medicine, Tomline's Prælector and Aldrichian Professor of Anatomy, and Clinical Professor, died on the 24th ult., after an illness of only thirty hours, in his 65th year. Dr. Ogle entered Trinity College in 1809, and became a scholar of his college, but married before succeeding to a fellowship. He took a first-class B.A. degree in 1813. In 1816 he took the M.A. degree; and, turning his attention to medicine, he took the degree of M.B. in 1817, and M.D. in 1820. He was elected to the Aldrichian Professorship of Medicine in 1824, and to the Clinical Professorship in 1830. In 1851 he succeeded Dr. Kidd in the Regius Professorship of Medicine. In 1854 he became Examiner in the new school of Natural Science, and retained the office for two years. He was a kind, cordial, liberal, and benevolent man, a warm friend, and highly esteemed both in his private and public relations. He had nearly retired from a practice at one time very extensive.

MR. JOHN HOLLAND, OF CHESTERFIELD.

On Friday, the 11th September, at Chesterfield, John Holland, Esq., surgeon, aged 40 years.—In him the medical profession has lost one of the stars from its banner, and society one of its brightest ornaments. At once the devoted student and the accomplished surgeon, the provincial circle in which he lived and moved and practised had not yet learned his true value, when he is lost to it for ever. Adorned with every manly virtue, with a heart overflowing with all the kindly feelings of our better nature, cut off thus prematurely in the prime of life, and in the midst of professional prosperity, how deeply his early death is felt as a local public loss may be judged by the number of sorrowing relatives, and friends and professional brethren, and processions of Freemasons and Oddfellows which attended his remains to the grave.

DR. JAMES WILSON, OF GLASGOW.

THIS excellent man and well-known Physician died on the 30th ult., in the 75th year of his age, after a severe illness of three weeks' duration, borne with exemplary patience and fortitude. Dr. Wilson was a native of Douglas, in the Upper Ward of Lanarkshire, where he was born on the 30th of June, 1783; and after having received a medical education at Glasgow University he settled in Carluke as a surgeon. Having practised his Profession there for several years he removed to Glasgow under the immediate patronage of the late Dr. Jeffrey, Professor of Anatomy in the College, who entertained a high respect for his abilities, and whose friendship he enjoyed during the remainder of the life of that venerable individual. In the earlier part of his Professional career he was associated with the late Mr. John Grieve, with whose family he afterwards formed a more endearing connexion, and on Mr. Grieve's death he succeeded to a small but well-established family practice, which laid the foundation of his future success in life. For at least forty-two years he followed his profession in Glasgow, and gradually acquired a well-deserved and an extensive reputation as a physician-accoucheur. The confidence reposed in his skill and judgment by his Professional brethren was so great that he was much consulted by them in cases of difficulty; and for many years he taught that branch of his art to which he was more particularly devoted in the Portland School of Medicine, and for one session he supplied the place in the College of the late Dr. William Cumin, when that gentleman retired to Bath. As a lecturer he was eminently successful, for he was plain and practical, and his pupils felt that he was thoroughly master of his subject; while in the private exercise of his professional duties he commanded and obtained the confidence and esteem of his numerous patients, whose counsellor and friend he became as much as their medical attendant. Dr. Wilson was a just and righteous man, whose conduct was habitually under the control of deep religious and moral convictions. His equanimity never forsook him even in the midst of distress and suffering; and when sorrow weighed

upon the hearts of others, and the tenderest feelings of nature were lacerated by domestic bereavement, no sympathy was more freely and unaffectedly given than that of the benevolent physician, whose art, assiduously and generously applied, had failed to ward off the inevitable and fatal blow.

M. FÉLIX JACQUOT.

French military medicine has just sustained a great loss by the death from pneumonia of M. Félix Jacquot, at the early age of 38. He was the author of an excellent work upon the endemic diseases of warm climates, the result of his experience in Algeria. He served with great distinction in that country, with the French army at Rome, and in the Crimea. He was an *agrégé* at Val-de-Grâce and Chevalier of the Legion of Honour; and was thus suddenly cut off in the midst of a most flourishing career.

The following Medical officers have perished lately in India:—Surgeon Henry Hawkins Bowling; Dr. Carl Barielly Buch; Assistant-Surgeon Anthony Dopping; Assistant-Surgeon Joseph Fayrer; Superintending-Surgeon James Graham; Assistant-Surgeon John Colin Graham; Assistant-Surgeon George Hansbrow, formerly one of the students in Human and Comparative Anatomy at the Royal College of Surgeons of England; Dr. John Macdowall Hay; Dr. E. M. Augur James; Surgeon Kinloch Winlaw Kirk; Assistant-Surgeon John Kirk, M.D.; Dr. Robert Patna Lyell; Surgeon Moore, 60th Rifles; Surgeon Richard Henry Oakley; Assistant-Surgeon Arthur Wellesley Robert Newenham; Dr. Fagan, at Kooraobe; Assistant-Surgeon Samuel Maltby, wife and family; Assistant-Surgeon Thomas Mawe. The death of Dr. J. M. Maclagan has been contradicted by his brother; Dr. M'Egan and his wife are believed to have been massacred at Jhansi.

MEDICAL NEWS.

ROYAL COLLEGE OF PHYSICIANS.—At the usual quarterly meeting of the Comitia Major, held Sept. 30th, the following gentlemen, having undergone the necessary examination for the diploma, were admitted members of the College:—

Dr. ANDREW SMITH, Thurlow-square.

Dr. JAS. L. SIORDET, Holles-street, Cavendish-square.

Also, at the same Comitia Majora, the following gentlemen were admitted extra-licentiates:—

Dr. FRED. J. BURGESS, Bishop's Waltham.

Dr. WM. FRAS. NOOTT, Portsmouth.

Dr. WILLIAM TIDMAS, Nottingham.

At the same Comitia Majora Dr. CAPE, Curzon-street, Mayfair, was admitted a Fellow of the College.

DEATHS.

HEATHCOTE.—At Cawnpore, massacred on the 15th July, T. Godfrey Heathcote, Esq., Surgeon of the 10th Regt. Native Infantry, stationed at Futtehghur; also Gertrude his wife, and their two youngest children.

HARPER.—Drowned, July 1, at Sitang, Moulmein, Charles Harris Harper, Esq., M.R.C.S., Assistant-Surgeon H.E.I.C.S., Madras Establishment, youngest son of Archdeacon Harper, rector of Elveden, Suffolk, late of Madras.

QUEEN'S UNIVERSITY IN IRELAND.—A meeting of the members of the University was held on Saturday, 3rd of October, in St. Patrick's-hall, Dublin-castle, for the purpose of conferring degrees and honours. The Lord Chancellor of Ireland, Vice-Chancellor of the University, presided on the occasion and conferred the degrees; the honours were distributed, at the solicitation of the Vice-Chancellor, by his Excellency the Lord Lieutenant. There was, as compared with preceding years, a great increase in the number of candidates. The Medical degrees and certificates were: Degree of M.D., J. Colahan, Galway; J. W. Collins, M.R.C.S. Edinburgh, Cork; M. J. Crean, Galway; A. Dunlop, M.R.C.S. England, Belfast; P. J. Kelly, Galway; W. M'Cormac, A.B., M.R.C.S. England, Belfast; E. D. Mapother, L.R.C.S.I., Galway; J. M'Crevey, M.R.C.S. Edinburgh. Belfast; M. O'K. Morris, A.B., Cork; D. B. O'Flynn, A.M., Cork; D. M. O'Hara, Belfast. Eleven gentlemen obtained the certificate of the first Medical Examination. The Medical honours distributed were:—E. D. Mapother, M.D., £20 and medal, first prize in Medicine; W. M'Cormac, M.D. £10 and medal; H. Dunlop, M.D. £20.

VITAL STATISTICS OF LONDON.

Week ending Saturday, October 3, 1857.

BIRTHS.

Births of Boys, 916; Girls, 849; Total, 1765.
Average of 10 corresponding weeks, 1847-56, 1441·1.

DEATHS.

	Males.	Females.	Total.
Deaths during the week	588	499	1087
Average of the ten years 1847-56	..	..	1136
Average corrected to increased population	...	..	1250
Corrected average for corresponding week in ten years 1847-56	585·2	551·0	1136·2
Deaths of people above 90	..	..	6
Deaths in 13 General Hospitals	35	22	57

DEATHS IN SUB-DISTRICTS FROM EPIDEMICS.

	Population. 1851.	Measles.	Scarlatina	Hooping-Cough.	Diarrhœa.	Cholera.	Typhus.
West	376,427	4	5	4	14	..	12
North....	490,396	3	11	7	13	..	14
Central ..	393,256	5	7	7	12	1	4
East	485,522	5	8	5	20	..	16
South	616,635	1	5	2	20	1	5
Total..	2,362,236	18	36	25	79	2	51

DEATHS REGISTERED DURING THE WEEK.

Causes of Death.	In the Week ending Saturday, Oct. 3, 1857. Deaths of Persons. At all ages.	Under 20 Years of Age.	At 20 and under 40 Years of Age.	At 40 and under 60 Years of Age.	At 60 and under 80 Years of Age.	At 80 Years of Age and Upwards.	Averages of Temperature and Deaths in 10 Weeks.
Mean Temperature	Mean temp. 58°4						53°8
ALL CAUSES	1087	588	173	150	143	33	1136·2
SPECIFIED CAUSES	1083	584	173	150	143	33	1128·2
DISEASES:—							
1. Zymotic Class	243	195	24	8	13	3	367·6
2. Dropsy, Cancer, and others of uncertain seat	45	10	9	9	12	5	44·9
3. Tubercular Class	185	69	68	43	4	1	167·6
4. Of Brain, Nerves, etc. ..	104	46	20	14	21	3	112·5
5. Of Heart, etc.	50	4	8	13	25	..	37·8
6. Of Respiratory Organs ..	125	84	11	12	15	3	116·0
7. Of Digestive Organs ..	60	32	7	12	8	1	60·9
8. Of Kidneys, etc.	12	2	1	5	4	..	12·7
9. Of Uterus; viz. — Puerperal Disease, etc. ..	6	1	3	1	1	..	9·2
10. Of Joints, Bones; viz.— Rheumatism, etc. ..	3	2	..	..	1	..	7·5
11. Of Skin, etc.	2	1	..	..	1	..	2·0
12. Malformations	1	1	..	..	..	..	3·9
13. Debility from Premature Birth, etc.	30	28	1	1	..	..	27·3
14. Atrophy	41	29	..	4	8	..	30·2
15. Age	33	..	..	..	17	16	39·8
16. Sudden	14	8	2	3	1	..	20·0
17. Violence, Privation, etc...	129	72	19	25	12	1	68·3
CAUSES NOT SPECIFIED.. ..	4	4	..	..	..	..	8·0

METEOROLOGY.

From Observations at the Greenwich Observatory.

Mean height of barometer	29·868 in.
Mean temperature	58·4
Highest point of thermometer	70·3
Lowest point of thermometer	45·5
Mean dew-point temperature	54·9
General direction of wind	S.W.
Whole amount of rain in the week	0·17
Amount of horizontal movement of air in the week ...	460 miles.

TO CORRESPONDENTS.

DR. MUSPRATT'S DICTIONARY OF CHEMISTRY.

TO THE EDITOR OF THE MEDICAL TIMES AND GAZETTE.

SIR,—In answer to numerous inquiries I beg to say, through the medium of your valuable columns, that if my Dictionary is to be finished with articles as complete and full as those which have appeared already, that four years more will be required for the purpose, and necessarily it will extend to eighty instead of forty-five parts, as stated on the cover. Should subscribers object to this they will please notify it to the publisher. I can finish it now in forty-five parts if required. My remuneration for the work being *nil*, (although there are 50,000 subscribers,) I wish it were finished with all my heart. I am, &c.

SHERIDAN MUSPRATT, F.R.S., &c., Professor of Chemistry.

College of Chemistry, Liverpool, Oct. 1, 1857.

ASIATIC CHOLERA AND ITS PREVENTION.

TO THE EDITOR OF THE MEDICAL TIMES AND GAZETTE.

SIR,—As Physician to the Belfast Cholera Hospital, I had unusual experience in the treatment of Asiatic Cholera. During the earlier outbreaks of this malady, opium and calomel were among the remedies most confided in. During the more recent outbursts, however, a new and additional remedy, of great efficacy, was resorted to. This remedy consisted of the dilute acids, any of them. Use and convenience gave the preference to dilute sulphuric acid; and to this dilute acid, more or less combined with opiates, I habitually restricted myself. The name of the person who introduced this remedy, like that of many another benefactor of his species, is unknown. The elixir of vitriol, which is merely sulphuric acid diluted with spirit, and the addition of a little aromatic, is, in respect of cholera, literally and truly the elixir of life. Twenty drops in a little water may be taken every time the bowels are affected, also every two hours, for some hours after; but dilute sulphuric acid, that is to say, sulphuric acid 1 part, water 7 parts, has precisely the same medicinal properties; here, 30 drops in a little water will be an expedient dose. To children, a couple of drops, for each year of the child's life, may be given, otherwise, the mode of exhibition is the same.

I now come to another feature in respect of the efficacy of dilute sulphuric acid. I find that it possesses preventative as well as curative properties. On the occasion of the outbreak of cholera in the Belfast District Lunatic Asylum, and after many deaths had ensued, I put the whole establishment on a prophylactic or preventative regimen. I added dilute sulphuric acid to twelve ounces of water. Of this mixture I caused one table-spoonful, further diluted with a little water, to be swallowed each morning by every inmate. Very soon after, the cholera had completely disappeared. There is here the alternative of supposing that the disease spontaneously vanished, or that the dilute sulphuric acid had acted as a prophylactic. I myself prefer the latter conclusion. It is reasonable to conclude that a substance which possesses the property of constipating the bowels should be adverse to the production of cholera. Now, dilute sulphuric acid possesses this property. It is also conformable to the efficacy of prophylatic measures generally, though greatly exceeding the efficacy of most, in the prevention of disease. Sulphuric acid is cheap as it is effective. A pound of strong sulphuric acid, costing one penny, will make seven pounds of dilute sulphuric acid, which further diluted, would furnish a prophylactic draught to the whole of a regiment. And this brings me to the object and intent of these remarks. They are intended to serve our suffering countrymen in India, engaged with a murderous enemy, and assailed by cholera equally murderous. It is of great moment to cure disease, but it is yet more momentous to prevent it. I therefore have recourse to the wings of the press, in order to disseminate a suggestion, which, if acted upon, I feel assured is calculated to avert many a pang, and reserve lives of priceless value.

Belfast, October 3, 1857. HENRY M'CORMAC, M.D.

[Dr. M'Cormac seems to have overlooked Dr. Fuller's paper in this Journal.—ED.]

D.S.R.—A great many persons are unable to see equally well with both eyes, and consequently cannot use an ordinary stereoscope; but we know of no observations as to the proportion of persons so affected. It is so large, however, that M. Nachez has been obliged to make his binocular microscope so that it can be focussed to each eye.

We have to thank several correspondents for their kind offer of full reports of the introductory lectures at different London and Provincial Schools; but we are compelled to decline them all, and to be content with an abstract, as it is not thought quite fair to publish the lecture at one school entire, and only give an abstract of others.

M.R.C.S.E.—The Lunacy Act directs that houses having 100 patients must have a resident Medical attendant, and houses having less than 100 must be visited by a Medical man.

Dr. Daniell.—Many thanks. The proposed communications will be very acceptable.

R.N.—Every ship carrying 100 or more passengers must have a duly qualified Surgeon on board.

Mr. M.—Sir James Anderson died in February, 1856, in London.

A Village Doctor.—The most convenient mode of giving biniodide of mercury is by decomposing the bichloride of mercury with iodide of potassium, and dissolving the precipitated biniodide of mercury in an excess of iodide of potassium. Two grains of the bichloride, and half a drachm of the iodide in eight ounces of water, are good proportions for a mixture, the dose being a dessert-spoonful.

Mr. Hayne's Walton's Paper on Artificial Pupil is in type, and will appear next week.

Reports of the opening of the Medical Schools at Birmingham and Manchester are in type, but are unavoidably postponed until next week.

Dr. M.—It is not our custom to insert notices of Births and Marriages.

Philo.—The per-centage of recoveries at Bethlem during the dec. period ranges at 54·19, and the mean annual mortality at 6·37; while for the two years ending December 31, 1855, Dr. Hood states their relative results to be 43·05 per cent. of cures to an annual mortality of 8·27. From a table by Dr. Daniel Tuke, in the *Psychological Journal*, July, 1854, and quoted by Dr. Hood, it appears that the average results, drawn from the statistics of various asylums in England, Holland, France, Germany, etc., stand in the relation of 39·74 per cent. recoveries on the admissions, and a mean annual mortality of 10 per cent.

CONTEMPORARY BLUNDERS.

TO THE EDITOR OF THE MEDICAL TIMES AND GAZETTE.

SIR,—The "Students' Number" of a journal so widely circulated as the *Lancet* is likely to be extensively referred to by those crossing the thresholds of our Hospitals or Universities. Hence such a publication, if accurate, must be extremely useful, and if inaccurate, must cause much annoyance by rendering false information to those who will in all probability innocently accept it as trustworthy.

On this account I beg to protest against the extraordinary jumble which appeared last week.

The readers of the periodical who were indebted to the insanity of its compositors for the information that "the lady went into the garden on a knife, to cut a cabbage-leaf, to make an apple-pie," could not have been more surprised than was I to receive such information as the columns of last *Lancet* contain regarding the Edinburgh schools.

We could afford to pass over in silence the imbecile inaccuracy, or to smile at the riotous swagger of the "Edinburgh Correspondence" in the *Lancet* last winter, for all knew whence it came. But if the hard-ridden editors cannot be expected to be cognizant of the names of provincial teachers, a very small amount of trouble would readily procure accurate information from some trustworthy correspondent.

It is bad enough that the names of retired teachers should be put forth as though they still taught: (a) it is worse still that a misleading paragraph should publish the names of lecturers in connexion with schools with which they have not or never had anything to do. (b) But it is worst of all that our lamented teachers, who have long since been removed by death, should be said to be about to deliver lectures during the coming session. (c)

Many other mistakes of omission and commission might be noted.

I am, &c. Q. Q.

Edinburgh University, Sept. 29, 1857.

COMMUNICATIONS have been received from—

Dr. CONOLLY; Mr. TEALE; Mr. WORDSWORTH; Dr. WATERS, Liverpool; Dr. OSBORNE; Mr. GRIFFIN; Dr. OWEN REES; Mr. ANDERSON; Dr. S. MUSPRATT; Mr. CHAPMAN; Dr. DANIEL, Nassau, New Providence; Dr. BRYCE; Dr. THOMSON; Dr. BADEN; Dr. MAHON; Mr. J. Z. LAURENCE; Mr. HAYES WALTON; Dr. CHAMBERS; Dr. ARCHIBALD SMITH; Dr. M'CORMAC; Dr. MOORE; Mr. GREAVES; Dr. HILL; Mr. DAWSON; Mr. YEA; Mr. TILT; Dr. SYMONDS; Mr. J. DELVES; Mr. J. STUART; Mr. A. WICLESWORTH; Mr. W. DEAMER; Mr. PULMAN; Mr. CUSACK.

APPOINTMENTS FOR THE WEEK.

10. *Saturday (this day).*

Operations at St. Bartholomew's, 1½ p.m.; St. Thomas's, 1 p.m. King's, 2 p.m.; Charing Cross, 1 p.m.

MEDICAL SOCIETY OF LONDON, 8 p.m.: Mr. Hind, "On the Treatment of Cancer."

12. *Monday.*

Operations at the Royal Free Hospital, 1 p.m.; Metropolitan Free Hospital, 2 p.m.; Orthopædic Hospital, 3 p.m.

13. *Tuesday.*

Operations at Guy's, 1 p.m.; Westminster, 2 p.m.

14. *Wednesday.*

Operations at University College Hospital, 2 p.m.; St. Mary's, 1 p.m. Orthopædic Hospital, 3 p.m.

15. *Thursday.*

Operations at St. George's, 1 p.m.; Middlesex, 12½ p.m.; Central London Ophthalmic, 1 p.m.; London, 1½ p.m.

16. *Friday.*

Operations at the Moorfields Ophthalmic, 10 a.m.; Westminster Ophthalmic, 1½ p.m.; Great Northern. 2½ p.m.

EXPECTED OPERATIONS.

King's College Hospital.—The following operations will be performed at this Hospital to-day, Saturday.

Lithotrity.—Division cicatrix after burn; removal of necrosed bone from upper jaw, by Mr. Fergusson.

Lithotomy.—Division of sphincter ani, by Mr. Bowman.

(a) See *Lancet*, Sept. 26, 1857, p. 313, where Dr. Christison, Dr. Alison, Dr. Robertson, Dr. Andrew, and Dr. Dunsmure are mentioned as clinical teachers in the Royal Infirmary. The names of those who have succeeded these gentleman are, of course, not mentioned.

(b) P. 316, "Lectures are delivered in Glasgow, in the summer, on the History of Medicine, by Dr. W. Begbie; and on Climatology, by Dr. Pinkerton." Now, there are no such lectures known in Glasgow; and Drs. Begbie and Pinkerton have never been in any way connected with that place.

It may also be noted that at p. 315, Dr. Allman is said to be about to lecture on Botany and Zoology in Dublin, whereas that gentleman lectures in Edinburgh.

(c) At p. 307, the name of our lamented Edward Forbes is placed among those of the Medical faculty; and at p. 313. that of the late loved Richard Mackenzie is inserted as still Surgeon of the Infirmary.

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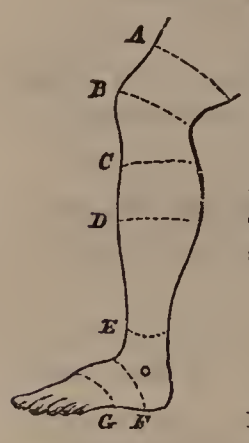

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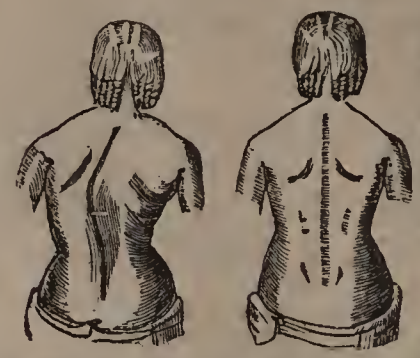

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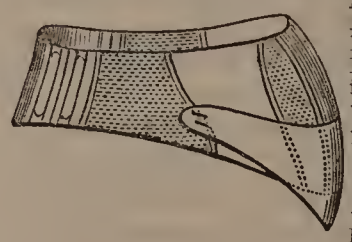

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ORIGINAL LECTURES.

CLINICAL LECTURE
ON A CASE OF PRESUMED
QUASI-CONGENITAL COARCTATION OF THE ARCH OF THE AORTA.

DELIVERED AT
University College Hospital,

By W. H. WALSHE, M.D.
Professor of Medicine in University College, Consulting Physician to the Consumption Hospital, etc.

A Carpenter, aged thirty-four, of a healthy family, the subject of two severe accidents, after the second of which he fails to recover his previous good health, becoming thenceforth delicate, and subject to cough, spits a table-spoonful of blood, and on admission is found to present certain anomalous signs in the circulatory system of the thorax, unattended with serious local subjective symptoms, or constitutional evidences of grave disease. Diagnosis, turning on a special murmur; reasons for rejecting various affections as its cause, and adopting as strongly probable the existence of constricted arch of the aorta. Objections to this view considered; why the post-congenital variety most probable; influence of external injury on arch of aorta not known. Effects of aortic constriction on the vessel itself, on the lungs, the heart, the brain, the systemic circulation, on nutrition, on the ribs, and on diathetic states. Prognosis; manner of death. Treatment; hygienic in the main. Mechanism of the chief murmur. Change in pitch of murmurs by conduction. Pulse—respiration ratio. State of the urine.

Gunnee, aged thirty-four, married, carpenter, (occasionally working as painter,) admitted May 20, 1857. Father died, aged past 60, of affection in legs; mother died of liver disease; brothers and sisters healthy; one aunt died of enlarged heart. Regular in habits; sober; has had measles; at eight years old scarlatina, immediately after which hair began to grow grey, sight failed, and had to use glasses; no dropsy known of; never variola. Eight years ago, while carrying with others a heavy weight, those others suddenly let go, throwing the weight wholly on his shoulders; he fell on his hands, the weight injuring the mesial lumbo-sacral region, where pain still exists; weak lower extremities long after this accident. Three years ago he fell some eight feet on a heap of bricks, breaking some left infra-axillary ribs; lay insensible for a quarter of an hour, then rseumed, and for two hours continued, work; next day fractures evident; laid up for a fortnight, loss of voice, cough, very slight then; ever since has been "delicate," liable to catch cold on slight exposure, and pain in left infra-axillary region almost constant. Has never had syphilis, rheumatism, gout, painter's colic, nor dropped wrists or other evidence of lead-poisoning.

Three weeks since, in sudden fit of coughing, spat about a table-spoonful of blood; and put himself under medical care.

Present state.—May 22, 1857.—(a) Strength not materially reduced; such weakness as exists felt at knees and sacro-lumbar region; sleeps well; colour of skin generally faintly sallow, cheeks good tint; limbs generally rather flabby, thighs remarkably so, calves best nourished portion. (b) Upper eyelids full, (natural conformation); no œdema anywhere; no notable perspiration; no eruption of any kind. (c) Nothing in bones or joints. (d) Tongue broad, flabby, furless; very slight bluish marginal line to gums of incisors; appetite variable; occasional weight after eating, and pyrosis; bowels natural; no thirst; liver-dulness (on medium percussion), four and three-quarters inches at nipple line. (e) Chest-wall moderately covered, integuments flabby however; interspaces, infra-clavicular and infra-axillary slightly hollow, both in inspiration and expiration; percussion across upper sternum and in neighbourhood less resonant, with greater resistance than natural, difference slight between two sides,—after numerous trials the right appears slightly the less resonant of the pair; respiration weak under left clavicle, though good expansion there: bases posteriorly well resonant; right slightly the less of the two; respiration, absolutely, full at both bases, relatively less, very slightly, at right; inspiratory movement slight at both supra-spinous fossæ; respiration = 28; has had florid epistaxis. (f) Pulse 72, regular, moderately full, left, considerably fuller, more forcible, broader, and harder, right; right ulnar at upper part of forearm tortuous, half way down lost to sight, but palpable deeply and even vibratile; pulsations of radials and ulnars moderately visible and locomotive; facials visible; femorals invisible; left posterior tibial very slightly so; carotids (right somewhat more than left) and subclavians violently, expansilely, visibly beating, widening base of neck at each ventricular systole; jogging deep impulse to stethoscope and hand (non-parietal) across upper chest; artery, about size of radial, running vertically along right vertebral groove from posterior base of neck, visibly pulsatile; about inferior angle of left scapula arteries, visibly and locomotively pulsatile, tortuous, in the main vertical; also pulsation found horizontally in several places in the course of the ribs; two spots about inferior angles of scapulæ where heaving expansile impulse; violent heaving impulse at sternal notch, acting upwards, not, at least positively, sidewards; no thrill above clavicles, but very, very slight and occasional at second right space, and also at the sites of maximum pulsation at both sides of the back, occasional and variable in amount; jugular pulsation, much more right than left, cardio-respiratory in rhythm; doubtful whether emptied vein refills from below.

Heart.—Apex-beat in fifth space a little outside the nipple, impulse visible in fourth also; recession in diastole accompanied with a quasi-impulsive jog; præcordial region somewhat arched; no thrill at apex; percussion (of medium force) gives dulness—vertically five and a quarter inches, transversely five inches, vertico-diagonally six five-eighths inches. At the left apex first sound dull in tone, sometimes followed at a distinct interval of time, sometimes accompanied at its close by a murmur, roughish, not very weak, rather high pitched, of tolerable length, somewhat even encroaching on the second sound, (which itself seems perfectly free from murmur, but dull in tone,) audible, very faintly, round the left lateral base of the chest, and apparently transmitted from heart's base. At the right apex phenomena just the same, except that the first sound is weaker and the murmur louder: there is a spot between the base and the ensiform cartilage, where the murmur is weaker than at either. At the base, murmur high pitched, rough, deep seated, more synchronous with systole than at apices; the ear is here impressed as if the quasi-systolic murmur and first sound were not produced at the same spot. Murmur of maximum intensity at second interspace at little to the right of the sternum: [In order to avoid repetition the other characters of this the main murmur will be given in the Commentary only.] Murmur loud, hoarse in left vertebral groove, higher pitched right, deep seated, quite distinct from murmurs, producible by pressure in the superficial dilated vessels; murmur is heard under pressure in all the arteries coarser than that producible in health, varying in pitch; no venous hum caught. Intellect quite clear, apprehension rather quick; headache, throbbing and vertigo occasional; no motor perversion of any kind. Spine does not deviate; lumbo-sacral pain or uneasiness; nothing to be seen wrong in spine.

[Any details which it appears necessary to give concerning the progress of the case in Hospital, will be found in the Commentary.]

COMMENTARY.

§ I. Gentlemen.—In proceeding to establish the diagnosis in this remarkable case, there will be no temerity in starting with the assumption that we have a cardio-vascular affection to deal with, and that of that affection a special murmur furnishes the most significant evidence. That special murmur is, in truth, the dominant clinical fact, in respect of physical signs; and it will consequently be advisable to commence by recapitulating its chief characters. The murmur, then, as may be deduced from the narrative just placed before you is of maximum intensity at the second right interspace close to the sternum; harsh in quality wherever audible; of sawing special character at its maximum point—where, too, the pitch is extremely high; of apparently different pitch at different points of the chest-surface (a debateable matter to be by and by more fully inquired into); conveyed upwards, to the right, to the left, downwards in the direction of both ventricles, but markedly more in the course of the right than of the left, backwards to both vertebral grooves, but more intensely to the right than the left, on the level especially of the spines of the scapulæ; persistent; not notably influenced by change of pos-

ture from the sitting to the lying, and *vice versâ;* in rhythm synchronous at its commencement with the close of the first sound, continuing after this has ceased and not covering it, during the brief moment while both are co-existent; and, lastly, when listened to at the base of the heart, striking the ear as though it originated at a spot more or less distant from the site of production of the heart's first sound.

Such are the characters of the murmur. What are the conditions of the heart's sounds? Both are audible at the right and the left apex, and at the base; while, of the two, the second possesses in the more satisfactory manner the attributes of health. Now the perfect freedom of the diastolic sound from morbid character proves the absence of mitral constriction, of tricuspid constriction, and of regurgitation through the aortic or pulmonary orifices. On the other hand, of the conditions, possibly productive of *quasi*-systolic (really slightly *post*-systolic) murmur, mitral and tricuspid regurgitation require only to be named to be rejected as the essential causes of that audible in Gunnee's chest. Compare the characters of the murmur, a moment since rehearsed, with those of an acknowledged mitral or tricuspid regurgitant murmur, and you will, if on first thought disposed to question the propriety of this absolute rejection, at once admit its justness. (a) But what is to be said of pulmonary or aortic constriction? Is the murmur we hear the result of obstruction of one or other, or of both the arterial orifices? The synchronism, localization, and other characters of the murmur, loosely considered, seem not discordant with this explanation of its mechanism. But, examined at all closely, the hypothesis proves untenable. The murmur cannot be pulmonary constrictive, in truth, because (*a*) it is not perfectly synchronous with the first sound; because (*b*) it is too loudly transmitted down the chest; because (*c*) the maximum point lies to the right of the sternum; because (*d*) the first sound is too well characterised, too distinctly audible; and, besides, the pulmonary orifice can scarcely be constricted, because (*e*) cyanotic symptoms are totally wanting. Nor do I think the murmur indicative of aortic obstruction. Three of the objections just urged apply here also—those marked *a*, *b*, and *d*. Besides, an aortic murmur is of maximum force at the heart's base,—not, as that under examination, at the second space to the right of the sternum. And, again, the pitch of the murmur indicates, as I think, with much certainty, a *considerable* amount of constriction—that the spot where it is produced is narrow. Now we cannot admit that such constriction exists at the mouth of the aorta, for the radial pulses are at the least fairly broad and full. (b) If the aorta be narrowed, the lessened calibre must affect, not the orifice, but some spot in its course, so placed as to exercise no influence on the radial arteries. Should the validity of this argument be demurred to, on the score that the large vessels at the base of the neck, springing from the arch, are (as is indubitably the fact) materially dilated, and that through this dilatation the influence of co-arctation of the sigmoid orifice of the aorta must be annulled, that counter-argument would avail its employer nothing. For, inasmuch as that counter-argument assumes as its basis the co-existence of two conditions (*narrowed* aortic mouth with *widened* arch and connected great vessels) which Nature, so far as I can ascertain, has never been known to unite, it falls at once to the ground, and cannot, indeed, be said to have any logical existence at all.

§ II. It would seem, then, that the ordinary causes of cardiac murmur fail to explain that heard in Gunnee. Let us, next, look *seriatim* to the rarer, the more extraordinary mechanisms, coupling with our consideration of these that of the class of arterial causes.

Can the murmur be caused by the flow of blood through a *patent foramen ovale?* That such flow is, independently of other conditions, capable of generating murmur may reasonably be, and commonly is, doubted. *Rationally* the notion may be opposed; for an intra-auricular current must be wanting in force, and the edges of the opening through which the blood flows are smooth. *Experience*, on the other hand, may point to two series of cases of this class: in the one murmur existed, in the other it was absent. Now, in the first of these series, other abnormal states, especially constriction of the orifice of the pulmonary artery, were present to plausibly explain the murmur. In the second the absence of murmur would seem to demonstrate the unfitness of mere patency of the foramen ovale to produce abnormal sound: but only seems; for it must be confessed the evidence (instance Bizot's cases) is not so convincing as might be desired; there is habitually a want of proof, that when the foramen has been found widely open after death, with an alleged deficiency of physical signs during life, clinical examinations had been made with sufficient care to justify the unqualified assertion of that deficiency. And lately, indeed, Dr. Markham has published a case in which a well-marked murmur, *apparently* inexplicable in any other way, seems to its observer to have been generated at an open foramen; but conceding, *argumentia gratiâ*, that this murmur was really so generated, we cannot utilise the case in accounting for that heard in Gunnee—inasmuch as in our patient the murmur attains its maximum intensity to the right—in Dr. Markham's, was loudest to the left—of the sternum. On the whole, I think we may reject this mechanism as inapplicable in the present instance; and this without mooting the vexed question—Whether flow from auricle to auricle takes place never, rarely, frequently, or constantly in cases of patent foramen; and, likewise, without insisting on the complete absence of cyanotic discoloration in Gunnee, as negativing the idea that his auricles communicate at all.

True sacculated aneurism of the left ventricle has in rare instances been attended with murmur: but that murmur has been of maximum force about the left apex, and has synchronised precisely with the systole,(c) simulating the essential sign of mitral regurgitation. Have we not here ground enough, without any reference to the adjuncts of Gunnee's murmur, to show, that this cannot depend on an aneurismal ventricle?

Calcification of the arch may give rise to murmur, systolic or slightly post-systolic in time: such murmur might of course reach its maximum, as here, at the second right space; while jerking and forcible impulse at the sternal notch, and thrill, somewhere in the course of the arch, as observed in Gunnee, are among its pretty frequent accompaniments. But the intensity of Gunnee's murmur, its extremely elevated pitch, and its notable transmission downwards are, according to my experience, discordant with the idea of this mode of generation.

Nor can I conceive the murmur under examination to be produced by the pressure of a *mediastinal tumour* against the arch. It is singular enough, I may observe parenthetically, how rarely intra-aortic murmur is thus generated in that portion of the vessel. Still it sometimes is so generated. Why not here? Because the pitch is too high, the intensity too great, the downward transmission too marked of the murmur we are called upon too explain. Besides were tumour-pressure the cause of the murmur, other pressure-signs, concentric, eccentric, or both (not one of which is here discoverable) would assuredly be present.

More serious seem the claims of that most uncommon state, *coarctation* on the cardiac side *of the orifice of the innominata*. For, observe, the pitch, the intensity, the synchronism of the murmur are perfectly accordant, the site of maximum development not discordant, with mechanism of the sort; while the apparently disconnected localization of the first sound and the murmur at the base of the heart also deposes in its favour. And again, the thrill at the second right space, coupled with the negation of intra-thoracic pressure-signs, all tell in the same direction. Still we have not hit on the true cause yet. For, in the first place, a murmur of this origin would not be conveyed downwards, and would be loudly audible in the right carotid; and in the second place (if you will forgive my torturing the words of Pope), I think I may say, forcible though the arguments for narrowed innominata in Gunnee prove, "Look in *his neck*, and you forget them all." In truth, were the innominata constricted, what should the condition of cervical pulsation be? Why, obviously, there should be nothing abnormal in the impulse of the left carotid and subclavian arteries; while

(a) It is true, a murmur is audible at the left apex with, or slightly after the systole, and may be faintly traced round the lateral base of the chest. Still this seems to be only the main murmur transmitted from above. The second sound (it may interest those to know who attach importance to the fact in connexion with mitral regurgitation) is weaker at the pulmonary than the aortic (second left than second right) cartilage.

(b) The difference in the characters of the two radial pulses will be matter for after-inquiry; that difference obviously has nothing to do with the point now under discussion, inasmuch as, *absolutely* considered, both pulses are of good force and breadth.

(c) To diastolic murmur connected with sacculation of the heart, it is not necessary for our purposes to refer.

the expansion and beat of those vessels on the right side should be more or less materially below par. Now, here, on the contrary the impulse and expansion are largely in excess on both sides of the neck; and that excess is now somewhat greater on the right than on the left.

The site and peculiar rhythm of the murmur might be indicative of an *aneurism* of one of the *sinuses of Valsalva;* but its intensity, high pitch and downward transmission seem irreconcileable with this view of its mechanism. Again, the site, the rhythm, and the intensity of the murmur, coupled with the percussion-dulness at the top of the chest and the sense of deep-seated impulse in the same situation, bear witness in favour of ordinary *dilated or sacculated aneurism of the arch;* while, *per contra*, the pitch of the murmur and the remarkable identity of its characters, during the whole time the patient has been under observation, taken in conjunction with the deficiency of pressure-signs and the absence of specific pain either in the vertebral region or in the front of the chest, militate forcibly against the real existence of that disease. The unchangeableness of the attributes of the murmur through so long a period I imagine to be peculiarly hostile to the notion of aneurismal mechanism. Still, it must be confessed, the sum of objections fails to show the impossibility of the presence of aneurism; and as we shall presently see, the truth is, that though the diseased state is not essentially aneurismal, aneurism of a certain fashion has actually arisen, and still exists, as one of the consequences of that state. *Dissecting aneurism* of the arch need only be named to be rejected. True, for ought I know, a murmur, such as that heard here, might appertain to that form of mischief in the vessel; but there is a total want of signs of obstruction of the blood-current through the vessels connected with the arch,—and to settle the matter at once, we have no experience of dissecting aneurism as a disease of chronic course.

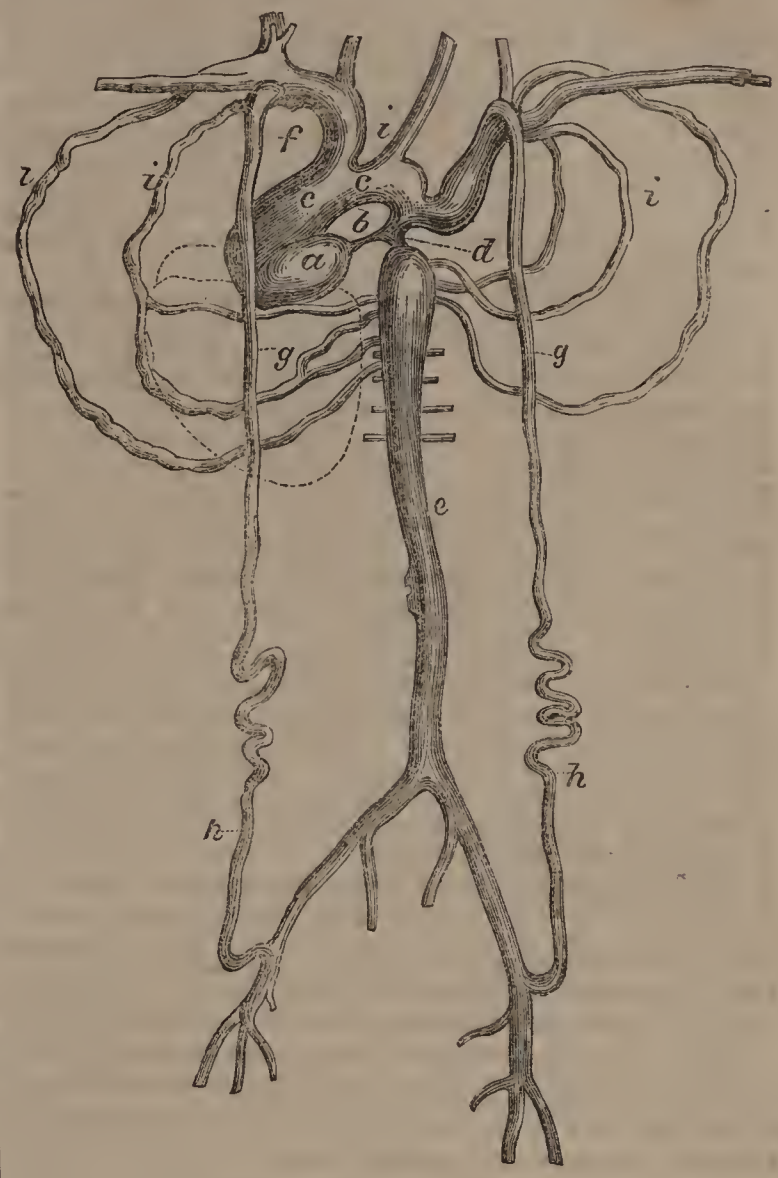
For the existence of some one of the varieties of *varicose aneurism of the arch* we have this *primâ-facie* argument, that such aneurisms are generally small; in other words, the absence of notable dulness, of pressure-signs, and of specific pain, in Gunnee do not throw the difficulty in the way of admitting the presence of a varicose, that they do of a simple, aneurism. Well, first, can we admit here the existence of a small aortic sac communicating with the *cava superior?* No. For the limited experience hitherto obtained of this compound affection entitles us to look *inter alia* for a whirring quality in the attendant murmur, for cyanosis, for grave symptoms, dyspnœa, œdema of the neck and upper chest, distension of the jugulars, and various other indications of an amount of venous obstruction menacing existence. It is, indeed, doubtful whether life could be prolonged for any length of time. Secondly, did a communication exist with the *pulmonary artery*, the murmur would be precisely systolic; I doubt its being by possibility so high pitched as in the case of Gunnee; it would be attended with more marked thrill; and assuredly we should expect subjective and objective symptoms of graver character than those we have had to set forth. (d) Thirdly and fourthly, communications of an aortic sac with *the right ventricle or right auricle* produce grave symptoms, subjective and objective, none of which are here present.

Aneurism of the pulmonary artery does not, I believe, exist in Gunnee; the auscultation-signs would lie to the left, not to the right of the sternum; there is not surface-impulse enough for that affection, as commonly observed; the percussion-dulness would lie lower, and to the left; and there would be cyanotic symptoms more or less marked.

§ III. It seems, then, we may almost exhaust the list of probable and improbable causes of this murmur, without finding one reconcileable with all the circumstances of the case.

(d) I feel, however, the importance of great caution in making general assertions concerning these very rare forms of disease. Here is a preparation showing the necessity of being chary in assigning, as matter of necessity, grave symptomatic disturbance to the existence of communication even on a large scale between the two great vessels. You observe here (U. C. Museum, No. 2254) an opening as large as a split pea on the pulmonary, half an inch in diameter on the aortic side; and yet in this case, which was under the care of a former most eminent Physician of this Hospital, it would appear (as the Museum Catalogue affirms) the aperture "was not detected during life by any morbid sound or symptom,"—a statement which, it seems to me, must satisfy the most incredulous among us, the terrible functional disturbances to be fairly looked for were altogether absent. One can conceive, in truth, such nicely balanced forces of current in the two vessels, that (as in the analogous case of the two auricles with an open foramen ovale) no commingling of venous and arterial blood shall arise.

But there remains for consideration a singularly rare form of aortic malformation, which, I believe, may be held capable of explaining all the facts before us: I mean *quasi-congenital coarctation of the arch.* I show you, from the Carswell Collection, (e) a drawing exhibiting the chief anatomical pecu-



a. Pulmonary artery. *b.* Ductus arteriosus. *c, c.* Arch of aorta. *d.* Coarctation of aorta. *e.* Thoracic and abdominal aorta. *f.* Innominata. *g, g.* Internal mammary arteries. *h, h.* Epigastric arteries *i, i, i, i.* Deep-seated arteries of neck and intercostals, (one of the letters, *i*, has been by accident misplaced at the left of the innominata). The heart's outline is indicated by dotted lines.

liarities of that state, as I presume it, essentially at least, to exist in Gunnee. Now a considerable number of examples of this state have been put upon record, several of them with minute anatomical detail. But my object is the clinical history of the affection; I shall, therefore, referring you to one or two books for further information, (f) limit myself, *quoad* anatomy, to the mere statements, that here is a kind of coarctation, found below the origin of the left subclavian, in close proximity to (at or immediately below) the ductus arteriosus; varying in length, but, except in very exceptional instances, scarcely more than a line or two long, as though a string had been tied round the part; varying also in amount, from more or less considerable narrowing, to complete obliteration of the vessel. The internal surface, where coarctation only existed, has been smooth (I only know of one exception to this). The vessels springing from the arch have been always more or less, sometimes enormously, dilated; and various second and third-class arteries, especially the intercostal, deep cervical (see figure), and epigastric, anastomotically enlarged. There

(e) Another example of the remarkable fertility of the late Sir R. Carswell's pencil. How often in discussing the history of even the rarest affections do we find them rendered clearly intelligible by his admirable delineations; how often are we forced to exclaim, verily nothing within the domain of pathology seems to have escaped the eye and hand of this unwearied observer! They who know the man by his published works alone, can form but a most imperfect idea of the extent and value of his labours.

(f) See especially the collection of cases by Craigie, Edinburgh Medical and Surgical Journal, October, 1841; also Crisp, Dis. of Arteries.

seems every reason to believe this peculiar constriction is effected by an abnormal extension to the adjoining aorta of the contracting process in the ductus arteriosus; and that it is accomplished at the same time as that process, whence it may be termed *quasi-* or *post-*congenital.

But though the anatomy of the affection has been studied with much care, its clinical conditions are in some sort a *terra incognita*. Its diagnosis has never, so far as I know, been made. Cases are in this aspect referrible to three heads:—those in which no special symptoms attracted attention during life, and the constriction has been a *post-mortem* discovery; those in which symptoms of disease of the heart existed, or were supposed to exist, and cardiac mischief was alone suspected; those in which the disturbances of the circulation were more or less confidently referred to an imaginary aneurism of the arch. (g)

Let us see, then, why we venture to assume, as at the least infinitely probable, that Gunnee's aorta is quasi-congenitally constricted just below the left subclavian. In the first place, we seem almost forced, *per viam exclusionis*, to accept this explanation of his symptoms. Employing little else than the peculiar murmur as an element of inquiry, we find, in truth, that no single one of the ordinary, or the other rarer, forms of cardiac and arterial disease, can fairly be supposed to exist in Gunnee. In the second place, the diagnosis seems plainly warranted on direct grounds. The rhythm, intensity, quality, pitch, site, mode of transmission, and constant identity of characters of the murmur, are all accordant with this idea of its generation; accordant, whether we *à priori* consider what are likely to be the attributes of a murmur produced by the passage of the blood through a very much constricted spot below the arch; or whether we take the experience derived from cases actually observed. Thus in two instances which fell under the notice of Dr. Blackiston, and which after death were found to be of this kind, a murmur, essentially the same as that heard in Gunnee, had been audible. Next, look to the enlargement and great pulsation of the vessels in the neck; is not this exactly what we should anticipate to arise as a physiological result of an enduring interference with the aortic current just below the left subclavian? And is it not, further (in regard of the enlargement, at least), precisely what experience, as illustrated by Carswell's pencil, gives us the right to expect? Again, the slight amount of percussion-dulness, and the sense of impulse across and in the neighbourhood of the upper sternum, may be assigned, with perfect plausibility, to the influence of moderate dilatation of the transverse portion of the arch and of the innominata. Further, consider the singular pulsations and enlarged vessels in the back. The pulsation in two spots near the inferior angles of the scapulæ has all the qualities of aneurismal impulse,—heaving, expansile, forcible. So strong, indeed, is that impulse, that the idea of aneurism of the arch itself, extending backwards, suggests itself for a moment to the mind, and is rejected much rather because there is no percussion-dulness at the spots, and because, had an aneurism of the arch attained such magnitude, the subjective symptoms must have been of very different gravity and type from those observable in Gunnee, than because the impulse in itself wants the necessary vigour. But this pulsation is evidently caused by dilated and knotty intercostal arteries, in part of their posterior perforating branches; the vessels can be traced in various other parts of the back of different (but almost everywhere excessive) calibre and impulse. One may look on the knotty, tortuous dilatations as so many pseudo-aneurismal sacs; just as shown in this remarkable figure by Alexander Meckel, of Berne. (h) Yet more; the anomalous distribution of the right ulnar artery tells in favour of the diagnosis; for an inclination to various arterial anomalies has been noticed in the subjects of this coarctation. Note, too, the rhythm of the murmur—slightly *post-*systolic—just as we should expect of a murmur localized at a certain distance down the aorta, and corresponding to the systole of the left ventricle.

§ IV. On the other hand, do no objections to this view of Gunnee's case present themselves? I do not see any which may not be easily set aside. Thus, on first thought, it may appear, grave functional disturbance must of necessity attend an almost obliterated condition of the thoracic aorta. But so far from experience demonstrating the reality of any such necessity, it does the precise reverse: in some cases of this kind there have actually been no tangible symptoms at all; in others, some such very bearable annoyances as those endured by Gunnee. Again, I confess, one would expect a murmur of the supposed localisation to exhibit its maximum force to the left, rather than the right of the sternum. But we cannot feel any surety, in a case of such rarity as this, concerning the modifying conditions of conduction that may exist within the thorax; and, as actual matter of experience, the murmur has been found loudest to the right of the bone. (i) Nor can we attach importance to the deficiency of well-marked tactile thrill; for, though perhaps rather to be looked for, its absence may be accounted for by the smoothness (which experience justifies us in assuming to exist) of the inner surface of the narrowed spot. Nor does the visible and locomotive pulsation of some of Gunnee's arteries shake our faith—in truth, it rather strengthens our conviction—in the justness of the diagnosis. No doubt we are accustomed to refer that physical sign to aortic regurgitation, certain forms of cardiac hypertrophy, and local calcification of the vessels; but in plain truth, the possible influence of constricted arch has scarcely been thought of by observers,—to so few men does it happen to meet with a case of the kind. The probabilities are, that this affection does produce the sign in question; for it exists in Gunnee in those vessels originating above the presumed coarctation—is wanting in those springing from any lower point of the aorta. And, lastly, we need not be dismayed by the absence in our patient of certain arterial enlargements (for instance of the epigastric) that have been detected in other instances; for it would appear there is no absolutely fixed rule as to which vessels shall undergo dilatation.

Let us grant, then, the aorta is constricted, and at the spot fixed upon. You may inquire why we assume the constriction to be of the post-congenital species. May not the narrowing have arisen from some morbid process or injury to the vessel at a later period of extra-uterine life? To this I would reply, that the localisation of the constriction, as pointed to by the evidence, favours the notion of its specific character. It seems scarcely probably, to say the least, Gunnee could have had an attack of acute aortitis, leading to the exudation of lymph in sufficient quantity to almost obliterate the vessel, without symptoms of gravest character having occurred at the time: now of such symptoms his past history gives no indication. Besides it is infinitely unlikely an inflammatory constriction should with such complete precision have limited itself to the spot in the vessel subject to the post-congenital variety. But Gunnee has had two serious accidents in his life; and aortic constriction has been found in individuals who had suffered from more or less serious external injury. May not his constriction have been of traumatic origin? I think not. The evidence in any recorded case wholly fails to prove the alleged connexion of cause and effect between external violence and narrowed aorta. The connexion, too, is *à priori* an unlikely one: considering the probabilities of the matter, we should rather expect that an injury sufficient to affect the aorta at all, would lead to such form of mischief to the vessel as should at a period, more or less near, more or less remote, entail aneurismal disease. But I admit I here tread on most debateable ground: our actual knowledge of the influence of external thoracic injury on the aorta is, I fear, excessively limited; we are in the unfortunate position of being neither able to affirm nor deny. At least, having lately been consulted in two cases, where it was of deep importance to come to a positive decision as to the reality or the reverse of such influence, I was pained to find how little I knew on the subject, and astonished at the paucity—I might almost say the nullity—of written information elucidating it.

§ V. The probable effects of this form of aortic constriction are for the most part well exemplified by the case before us. As concerns the vessel itself; when narrowing affects any hollow canal, the calibre of that canal increases above, decreases below, the obstruction; so, here, the aorta and its

(g) In a case, observed M. Le Grand, "impediment to the circulation, either in the aorta or innominata," was inferred to exist; but its nature was not foreseen, its site was confessedly ignored, and it is doubtful whether the case was really one of the present class (vide Craigie, p. 444).

(h) The figure exhibited to the class will be found copied in Craigie's Memoir, loc. cit. The original was taken from the body of a robust peasant, aged 35, who, till within a few days of his death, had worked hard as a common labourer. The aorta was reduced to the diameter of a small stra

(i) In one of Dr. Blackiston's cases, at the second right rib; there was probably an influence produced here by diseased aortic valves,—but the maximum murmur was not basic.

branches are dilated above the constriction; while there is strong reason to believe the diameter of the descending thoracic and abdominal trunk has lessened. (k).

Gunnee is subject, especially when the heart's action is at all excited, to fits of dyspnœa, and to pulmonary congestion, which has more than once eventuated in hæmoptysis. This is just what might be anticipated from the sudden addition of a little extra difficulty in the propulsion of the blood from the left ventricle.

Does the permanent difficulty in that propulsion entail hypertrophy of the heart as a rule? the two things, constricted aorta and dilated hypertrophy of the left ventricle, have certainly been found in association; they seem rationally connected; in Gunnee there is reason to believe the heart is above the average size. Next, were the left ventricle very much dilated, it is conceivable the mitral orifice might widen notably, and regurgitant disturbance ensue, unless the valve proportionally enlarged: I cannot think, however, that any such regurgitation exists in the present instance. Again, the basic systolic murmur may be in part due to constrictive roughness of the aortic valves: if so, however, this could not be an effect of the coarctation of the arch; the bearing of that coarctation on the mouth of the aorta, if any, would be to widen it, and so produce regurgitation,—of which the well-known sign (basic diastolic murmur) is altogether wanting in Gunnee. Let me note as we go, that congenital imperfection of the aortic valves has occasionally been discovered in these cases.

As results implicating the brain, our patient suffers from fulness in the head, cephalalgia, and vertigo. Similar symptoms have been noted in others. Gunnee has had epistaxis also.

There seems no disposition to stagnate in the systemic circulation,—no particle of œdema about the feet can be detected; nor has such œdema, as far as I can make out, been noticed in any case, unless as a sequence of intermediate obstruction in the lungs and right heart.

The influence of a constricted aorta on nutrition seems less than might be anticipated. Gunnee exhibits, on the whole, the appearance of fairly nourished textures; five feet six inches in height, his weight has ranged between 9 stone and a half and 8 stone 10 lbs. during his stay with us. True, his muscles generally want firmness; but, considering that his occupation, that of a carpenter, brings the upper limbs into excess of action, the lower seem the better nourished of the four. This is remarkable enough, seeing that those lower limbs live wholly, or almost wholly, an *anastomotic life*.

A curious local influence, more than once witnessed, namely, wearing away of the ribs near their angles, is very likely to ensue, if, indeed, it have not already to a certain extent occurred, in Gunnee; the impulse of his enlarged intercostals seems quite equal to the task.

I do not see that constricted aorta is likely to generate or modify any diathetic state: tubercle in the lung has more than once been noticed; but I presume by accidental association only. Low inflammation, in the inferior extremities might be theoretically looked for; but I do not find they have actually been met with. Gunnee, while with us, had whitlow and slight lymphatic inflammation in one of his upper extremities.

§ VI. The records of cases of the class before us show convincingly we cannot be too cautious in regard to *prognosis*. What Gunnee's fate may eventually prove, either in the matter of time or of manner, no man can affirm. If, on the one hand, coarctation of the vessel is not incompatible with a life prolonged even far beyond the ordinary span of human existence; (l) on the other, death may take place in the midst of the most robust health with scarcely a moment's warning. The individual may die of some affection quite independent of the condition of his aorta; or his death may be effected either rapidly or quite suddenly through the influence of that condition. Now I think Gunnee's case is likely to fall under one or other of the latter categories; he may die rapidly from pulmonary congestion, of which marked indications have already occurred, or from cerebral disturbance; or he may die from sudden rupture of the aorta on the cardiac side of the obstruction, or from that of the right ventricle or right auricle. It is no valid objection to the idea of his, by possibility, dying suddenly, that violent disturbance of the heart's action has not been noticed in him: one recorded case, at least (that of Meckel), shows how rupture may occur where quietude of impulse seemed to render such a catastrophe a most unlikely event.

§ VII. *Curative treatment* of a case of this kind is of course out of the question. Nevertheless the *rôle* of the practitioner who may meet with one, is by no means unimportant; symptoms, congestive and other, are to be vigorously managed as they arise; and the occurrence of such symptoms at all to be warded off as far as possible by insisting on the careful adoption of hygienic rules. Now, of all these rules the most essential is that the patient avoid physical, emotional, and intellectual excitement (chiefly the two former),—that his life be in all aspects a tranquil one to the extent he can command. It is of extreme consequence, too, that he avoid exposure to cold and damp, and excesses of all kinds, such as must tend to perturbed circulation and local congestions. See what we have done for Gunnee, by simply affording him the tranquillity and repose of a few weeks of Hospital life! Subjectively he has ceased to be an ailing man; he is wholly unconscious of functional disturbance of any kind: objectively, the evidences of agitated and distressed circulation have disappeared: vessels which throbbed violently are now calm in impulse; others originally less excited (for instance several of small calibre about the scapulæ), have now ceased to be visible at all. But Gunnee cannot always live in the wards; he must work for his bread. Now, obviously the trade of a carpenter is about one of the worst he could pursue; and I am glad to say efforts are being made by Mr. Cu[illegible]pepper (who attended the patient during the acute attack that led to his admission), to obtain for him some light, non-laborious employment. Should he obtain this, and lead a quiet, sober life his days *may* be prolonged quite to the "expectation of life" of a healthy man thirty-four years old.

§ VIII. Before taking leave of this case, I should wish to direct your attention to some points of secondary, but by no means slight, importance.

What is the mechanism of Gunnee's murmur? Is it produced by the rippling current into which the blood may fairly be supposed to be thrown in the dilated portion of the arch, just prior to its struggle to force a passage through the coarctation? Probably the fact of the excess of murmur being to the right of the sternum might be held to support this notion: still in another aspect the site of the murmur is hostile to this view. Were it correct, I think the amount of noise would be greatest at the transverse portion of the arch. In all likelihood, too, the murmur would not be so loud, would be materially lower pitched, and would be attended with marked, not as here slight, thrill.

No; I rather suppose the murmur to be generated by the passage of the blood through the coarctation; the slightly *post*-systolic rhythm, the sawing quality and very high pitch, all readily accord with such notion of its mechanism. The site to the right, rather than the left, of the sternum may be plausibly referred to the existence of better conducting materials in the former than the latter direction; besides, little can be known of a positive kind concerning the manner of conduction of these rare murmurs.

The murmur, traced from its maximum site, seems to fall in pitch. Can this be the fact? or do we confound as a single one, two murmurs of different pitch? As long as any given sound continues audible, its pitch remains unchanged: such is, I believe, the admitted main proposition bearing on the point. But, to make it perfectly correct, the addition is required, so long as the conveying medium remains the same; if a total change in this occur, the pitch may rise or fall, according to the nature of that change. However difficult to understand, I am persuaded I here enunciate an experimental truth: we have observed illustrations of it together, where post-mortem examination showed, as had been supposed during life, that the source of murmur was single, and where, besides, change in *quality* was not confounded with change in *pitch*.

The absence of albumen from the urine is worth passing note, as a point in the natural history of the affection, further illustrating its want of tendency to produce capillary obstructions. The variations of gravity and quantity (the former

(k) In a man (observed by Roemer) dying with this affection at the age of fifty, the aorta from the constricted point downwards was no wider than that of a child ten years old.

(l) The subject of Reynaud's case lived to the age of ninety-two,—a wonderful instance of the power of the great physiological law of accommodation.

from 1030 to 1011, the latter from 12 to 46 ounces in the day) were unconnected directly, we cannot say indirectly, with the state of the aorta.

Even when Gunnee was perfectly free from intercurrent pleural or pulmonary irritation, his respiration was relatively more frequent than his pulse, so as somewhat to pervert the normal ratio. The mean of five observations in the lying posture gave the ratio 2·9 : 1. The posture made some difference in the results, as ascertained by Mr. Bruce; thus :—

	Pulse.	Respirations.	
Lying	58	21	about 2·8 : 1
Sitting	61	20	,, 3·0 : 1
Standing	64	24	,, 2·8 : 1

Gunnee's weight ranged during his stay, we have seen, between nine stone and a half and eight stone ten pounds; he left us increasing from the lowest amount, to which he had been reduced by attacks of dry pleuritic irritation, and had recovered to nine stone at the time of his discharge. He told us he weighed nine stone eleven pounds in December, 1849. It may be, then, there is a downward tendency in his nutrition-power, brought about by an increasing disposition to mechanical and irritative congestions.

ORIGINAL COMMUNICATIONS.

ARMY MEDICAL REPORTS.

(Selected, by Authority of the Director-General, from Documents in the Office of the Army Medical Department.)

No. XXXIII.

OBSERVATIONS ON THE

STATISTICS OF DISEASES OF THE BRAIN AND NERVOUS SYSTEM,

AS THEY AFFECT SOLDIERS, OFFICERS, WOMEN, AND CHILDREN IN INDIA.

By CHARLES ALEXANDER GORDON, M.D.
Surgeon, 10th Regiment of Foot.

Before entering upon the consideration of the rate of occurrence of, and mortality from individual diseases of the brain and nervous system, as these have been observed in the 10th Regiment in India, it has been deemed advisable to present a general view of the whole in the form of a Table.

PARTICULAR DISEASES.	Soldiers. Strength, 11,780.				Officers. Strength, 400.				Women. Strength, 1191				Children. Strength, 1460.			
	Cases admitted.	Died.	Deaths per 100 admitted.	Cases per 100 strength.	Cases admitted.	Died.	Deaths per 100 admitted.	Cases per 100 strength.	Cases admitted.	Died.	Deaths per 100 admitted.	Deaths per 100 strength.	Cases admitted.	Died.	Deaths per 100 admitted.	Cases per 100 strength.
1. Phrenitis	13	5			1	..			..	..			..	..		
2. Hydrocephalus	..	..			..	..			..	..			16	4		
3. Apoplexia	44	35	70·69	0·49	2	2	50·00	0·98	..	..	..	..	1	1	27·77	1·23
4. Coup de soleil	1	1			1	..			..	..			1	..		
5. Paralysis	28	1			2	1			..	..			..	..		
6. Epilepsia	38	1	30·30	0·56	..	..	50·00	0·48	1	1	100·00	0·08	..	..	100 00	0·89
7. Convulsio	..	..			..	..			..	..			13	13		
8. Amentia	17	..			..	..			..	..			..	..		
9. Observatio pro amentia	3	..	3·03	0 38	..	..	..	..	..	..	..	..	..	..	..	..
10. Mania	13	1			..	..			..	..			..	..		
11. Delirium tremens	48	8	13·41	0·69	2	..	..	0·48	1	1	20·00	0 41	..	..	..	..
12. Ebrietas	34	3			..	..			4	..			..	..		
13. Neuralgia	6	..			3	..			..	..			..	..		
14. Cephalalgia	69	..	..	0 69	2	..	..	1·71	12	..	..	1·00	..	..	..	..
15. Vertigo	7	..			2	..			..	..			..	..		
16. Hydrophobia	1	1	100·00	0·00	..	..	..	..	..	..	..	..	..	..	..	..
17. Hysteria	..	..	..	..	..	..	..	..	1	..	..	0·08	..	..	..	..
18. Nostalgia	..	..	..	..	1	..	..	0·24	..	..	..	..	..	..	..	..
General totals	322	56	..	..	16	3	..	..	19	2	..	..	31	18	..	..

From it the circumstance will be observed, that some of the affections belonging to this class of diseases, which are of considerable frequency at home, and might be expected to occur more frequently in bodies of soldiers exposed not only to the ordinary casualties inseparable from the military profession, but also to the pernicious influence of a trying climate, as the men of the 10th have for a succession of years been—are nevertheless not included in the above Table; nor, indeed, do any cases of such seem to have occurred, at least in an independent form.

One of the principal diseases here alluded to is tetanus, of which not one case is recorded, although the regiment, in the battles and campaigns in which during its Indian service it was engaged, had 252 soldiers more or less severely wounded, in addition to the men who were killed on the field. These wounds included the ordinary variety from musket, grape, and round shot, incised and punctured wounds, as well as contusions and the slighter class of injuries; fourteen of the whole number demanding amputation of a limb.

From this, when compared with what appears to happen in European campaigns, we are, I think, justified in referring the comparative scarcity of this fearful complication of injuries on the field of battle to the exceedingly good arrangements always made in India for the accommodation, transport, and treatment of the sick and wounded soldier.

The absence of ischias or sciatica is perhaps more apparent than real, for several cases do actually seem to have occurred, although they would appear to have been included under the head of rheumatism; indeed, it is by no means an uncommon disease in the rainy season in India, both in an idiopathic form and as a complication of the latter disease, from which there is some reason to fear it is not always diagnosed with sufficient minuteness.

It will be observed that ebrietas and hydrophobia are here included as idiopathic diseases, although they owe their origin to the introduction into the system of particular poisons; so, however, are fevers, so is syphilis, and various other diseases; nor is it always easy to distinguish diseases that owe their origin to causes intrinsic in the system from those produced by influences external to it.

Although the general nomenclature followed in the Table is that of Cullen, it is to be understood that the individual diseases included within the several brackets are so from their evident affinity to each other, as shown during their occurrence in the regiment, and not with a view of implicitly following his arrangement; while those that are separate are in their nature so distinct from each other, and depend upon such different causes that they could not with propriety be associated.

Having premised these general observations regarding this important class of diseases, I now proceed to show their rate of prevalence and mortality among the various classes constituting the regiment under my charge.

The former was, per 100 strength, and latter per 100 treated,

Among soldiers . . .	2·73	17·39
Among officers . . .	3·91	18·75
Among women . . .	1·59	10·52
Among children . . .	1·12	58·06

From this we observe that soldiers' wives are comparatively exempt in India from a class of disorders to which their sex is believed to be particularly liable at home; and that children, with the exceptions of hydrocephalus and convulsio, are all but exempt from this general class.

A close affinity exists between the first four diseases included within the same bracket. What is phrenitis in the adult is hydrocephalus in a child, for both depend upon the same pathological condition; while in many cases of what is called apoplexy in India, more or less distinct traces are found of the existence of inflammatory action within the head, although in the majority all such traces are absent.

Nowhere, indeed, throughout the whole range of Natural history is the affinity of species more noticeable than it may be observed to be in diseases; and as in India the characters of maladies are, perhaps as a rule, more distinctly developed, as well as more immediately urgent than in the United Kingdom, such affinity may be the more frequently and distinctly observed there than in this country.

During the hot and rainy seasons in India many cases occur among white troops where it is difficult to decide whether the symptoms are with most propriety referrible to ardent remittent fever or to apoplexy; and from what we know of the rate of mortality from the latter disease, it is to be presumed that the majority of the recoveries noted in the statistical Table as having occurred were in reality cases of this description of fever, complicated it may have been with severe cerebral symptoms.

Apoplexy not unfrequently supervenes as a direct consequence of exposure to solar influence, and in such instances is very naturally attributed to a coup de soleil. In some such the opacity of the arachnoid membrane and amount of serous fluid in and around the brain, as discovered after death, would seem to indicate the presence of active inflammation as one of the morbid conditions induced by such exposure.

The affinity, if not identity, of phrenitis and hydrocephalus has been already alluded to; some of the more common symptoms of these are vertigo and cephalalgia, although these may be present in various other forms of disease in no way connected with inflammatory action, while among the more common sequences of the former are softening, together with some more obscure alteration in the condition of the cerebrum, giving rise to paralysis, epilepsy, or convulsions.

Mania and amentia, but especially the former, is ascertained to be in the majority of instances dependent upon certain physical changes within the head, the result of inflammatory action; while, on the other hand, the brain fever of drunkenness or delirium tremens is so closely allied to phrenitis that a specific distinction has been drawn between them only within a comparatively recent period.

Thus, then, we perceive that this extensive class of diseases, as met with in India, while they may be considered to form one continuous circle of affinities, do nevertheless contain subordinate circles of still more close alliance, these running into various other maladies according to degree of relationship.

If we consider more particularly the diseases noted as phrenitis and hydrocephalus as they occurred in the 10th regiment, we find their rate of prevalence, as indicated by the hospital records, to have undergone great variations during the various years to which the present series of statistics refer. Thus, while no case of phrenitis, and only one of hydrocephalus seems to have occurred during the time the regiment was stationed at places in the hot damp climate of Bengal, or during the exposure on the first campaign in which it was engaged, the former occurred in the inconsiderable ratio of 2·50 cases per annum during the six years the regiment was in the dry climate of Upper India, except in the year 1848, when it proceeded on active service in the month of July, and in that year four cases are noted as having occurred.

It is somewhat remarkable, that throughout the first twelve years the regiment was in India, only three cases of hydrocephalus appear to have occurred among the children; all, however, being fatal.

From what we know regarding the rate of mortality from this particular disease, the natural inference is that some mistake in nomenclature has in this instance been permitted to creep into the returns; for that only one child should fall a victim out of thirteen affected with water on the brain shows a success in treatment scarcely supported by general results.

The most probable view of these to take is to consider that the majority were cases of fever, accompanied by cerebral determination, and that they succumbed to the ordinary treatment applicable to that disease; nor must it be forgotten that if military Medical officers do occasionally adopt exaggerated views of diseases under their treatment they are not singular in that respect. In India, so great is the tendency among children to cerebral complications when affected with fever, that the young practitioner may well be pardoned if he sometimes looks upon such complications as the primary, instead of the secondary disease; while, if the success of treatment be considered, it is found to be greatly enhanced by the circumstances of a disease being looked upon in an unfavourable aspect from its onset, for in that country, activity and decision in treatment are as necessary to success as pusillanimity and indecision are dangerous.

That the value of statistics, however, is affected by want of care in correctly diagnosing diseases is unquestionable, and it behoves regimental Medical officers to be careful that a mere complication of a malady, however alarming in itself, be not noted in official returns as the principal disease.

(To be continued.)

OBSERVATIONS ON CASES OF ARTIFICIAL PUPIL,

By HAYNES WALTON, Esq., F.R.C.S.

Surgeon to the Central London Ophthalmic Hospital, and to St. Mary's Hospital.

Admissibility of an operation.—Loss of pupil from prolapse of iris through a wound.—Treatment in anticipation, and by way of preparation for an artificial aperture.—Operation done while the other eye was sound.—The plan of "incision" and "extension" adopted.—Conditions under which such a course may be undertaken.—Closure of pupil from disease, the other eye healthy.—Operation of "incision."—Eclipse of pupil by opacity of cornea.—Operation of "excision."

Of the many operations that I am in the habit of performing on the eye, I have the greatest pleasure in the good results consequent on the opening of a passage for the admission of light to the retina, when disease or accident has rendered the natural pupil insufficient, that is, in making an artificial pupil. Perhaps this is due principally to the ingenuity and adroitness that are so often called forth, and for the most part required, on eyes that are much damaged, sometimes almost disorganized. There is a resuscitating effect consequent on the re-establishing of a natural physical condition in a most artistic manner. Withal, there exists much scope for discrimination and judgment, whether to operate or to refrain.

When the pupil is sealed by lymph or lost by prolapse of the iris, or so much eclipsed by an opacity of the cornea that artificial dilatation is unavailing, there can be no doubt, abstractedly, of the propriety of operating. But there are degrees of interruptions from these causes that demand a very practical balance of the questions of interference, or forbearance, and deduction must be based on the actual state of the impaired vision, and the probability of our being able to increase it. Were I writing a systematic paper, I would at least hint at the deceptive conditions, as I may call them, under which it is useless to attempt to make a pupil, of which the most marked is replacement of the corneal tissue by transparent cicatrix. Patients so conditioned are sometimes erroneously told that they might be made to see, and it requires determination to resist their importunities to attempt to relieve them.

Loss of the Pupil because of prolapse of the iris through a wound in the cornea, in a young man.—While cutting a bar of iron with a cold chisel, this unfortunate workman was wounded in his right eye by the portion he was detaching. I saw him early in May, 1856. He was sent to me by Mr. Elliott, of Portsmouth. The eyelids were so swollen and tense, and the conjunctiva so chemosed, that it was not easy to make out the precise nature or the extent of the injury.

Any systematic explanation under the existing impediments, the extreme sensibility of the eye, and the irritability of the patient, except under chloroform, might have been very injurious, and even fatal to the organ; besides in having ascertained that there was prolapse of the iris, produced in a particular manner, I desired no more information. I prescribed a cold anodyne lotion, a mild purgative, to be followed by very small doses of a narcotic, and rest. The eyelids being closed by tumefaction, there was no necessity for plaister to keep them together, my usual custom in like injuries to the eyeball.

The man returned to the country, according to his own desire, in a day or two. He visited me again in August, on account of very annoying irritation of the eye. There was drooping of the upper eyelid, constant lachrymation, and intolerance to light, the common consequences of an irritating substance on the surface of the eyeball. I now learned that the cornea had been completely rent or torn across a little above the centre, and a large portion of the iris, tightly girt, was hanging free: the pupil was of course lost. Instead of applying any escharotics, with the view of destroying the prolapsed bit,—and nitrate of silver had already been frequently employed, under the influence of chloroform,—I removed the whole of the prolapsed portion, close to the cornea. This was the proper course, and it was most effectual: the irritation passed away as if by magic.

But all cases of prolapse are not to be so treated; by no means, and if I am to specify the distinction concisely, I may say, do not as a rule meddle with those in which, as sometimes happens after the operation for "extraction," a portion of the iris bulges, or more or less prolapses, and so fitting the space between the separated edges of the cornea, closes the anterior chamber. Or in parallel examples, as after sloughing or rapid ulceration of the cornea. Let the present instance be a type of the class that admits of, and calls for such treatment.

In July of this year I saw my patient for the third time. The outline of the eye was not altered. A broad cicatrix marked the point of injury. The perception of light showed that the retina was healthy. The iris was not perceptibly altered in colour, and all trace of inflammation had passed away: I undertook to make an artificial pupil. Not knowing whether the crystalline lens was present or absent, I proceeded on the supposition of its existence and transparency, very unlikely circumstances, as most probably the violence of the injury had driven the lens out. When this body remains under such a convulsive occurrence, it is tolerably sure to become opaque.

I resolved to make a central pupil, as the disposition of the parts admitted of it. "Incision with extension," as I have been accustomed to call the proceeding, was the plan adopted. With the largest of my lancet-shaped iris knives, I incised the cornea close to the margin, and the iris directly below and parallel to its adhesion to the cornea, keeping the instrument as much forward as possible, that the lens might not be injured should it be there. Afterwards, with a blunt hook, I seized the lower lip of the wound, and tore it down a little. A sufficiently ample pupil resulted, and a clear passage was admitted for the light, there being no opaque lens or opaque capsule behind. A fair degree of vision was restored, but of the ultimate result I cannot speak, as a day or two after I opened the eye, just a week subsequent to operating, my patient left for his home, well satisfied with what had been done.

I must give some reason or explanation for departing from what is generally laid down as a rule, and operating while one eye was quite sound. I have made many exceptions of late, and I shall continue to act, seeking for principles on more extended experience. I find that with a central pupil there is not, so far as I have ascertained, double, or confused vision, or any other inconvenience. On the other hand, the patients have always expressed themselves much benefited. They get the natural range of side vision, which is of course useful in proportion to the perfection of the eye. The less, therefore, the organ is damaged, and the more it can be made available, including the advantage to be derived from a glass when the lens is lost, the more readily would I operate. Persons with eyes of different reparative powers, and very dissimilar focal ranges do not always get puzzled, and would not, so far as I can ascertain, like the less useful eye to be obscured. Even the slight addition of the improvement to the countenance by a restored pupil, is an advantage not to be thrown away. I am not unaware that after the removal of cataract from the one eye, the lens of the other being more or less cataractus, but not quite opaque, vision will often be better if the obscured eye be closed or covered.

This case should make one alive to the importance of striving in all accidents to the eye, however severe, short of collapse of the organ, to the advantage of saving it from complete destruction, as modern surgery can do much to bring into use one that has been considerably damaged.

Closure of the left pupil, the right eye being sound.—The subject of this, a girl of eighteen, was also one of my Hospital patients. Three or four years since she was violently struck on the eye; acute inflammation followed, and I conclude that the iris became universally adherent to the capsule of the lens. Some operation had been undertaken, but with what view cannot be determined. The pupil was very much contracted, displaced a little upwards, and closed. The iris was slightly discoloured, but the fibrous structure was apparent. It was concave, which showed that there was no lens. The cornea was clear and the sclerotica healthy. The retina evidently not much, if at all affected. This was a very favourable case, according to my view, for making a pupil. After the arrangements were concluded for the girl's admission, her friends would not allow her to be operated on at the Hospital, preferring that I should treat her at her house as a private patient.

With the assistance of Mr. Hulme, one of my colleagues, I made a central aperture by "incision," only cutting through the iris by a thrust with the knife that I spoke of in the last case. This, the most simple of all the operations for closed pupil, was completely successful; a portion of capsule that was visible at the upper edge of the new pupil did not produce inconvenience, and I left it alone. Not the slightest disturbance followed, and in a week the eye could be used. I did not see my patient till a month after. She was much pleased and fully satisfied with the restored sight, and had not felt any inconvenience while using the two eyes. I tested the state of her vision. She could read with a little attention very large type, such as largely printed letters on the backs of books. With the ordinary glasses used after the removal of cataract she saw as well as the majority of people after that operation.

A third case, narrated briefly, will illustrate another mode of operating, and conclude my communication. The boy is now in attendance at the Hospital. At about the age of eight, he lost his sight from purulent ophthalmia. The left eye is irrecoverably damaged. The greater part of the cornea of the right is opaque, but a clear space at the outer margin afforded an opportunity for a pupil. The iris was in part adherent to the cornea. Under the influence of atropine, the margin of the pupil was brought near the outer edge of the opacity, but the dilatation hardly improved the sight, although it placed the pupil advantageously for operating. I performed "excision," and made an entrance at the lower and outer part of the cornea, with my smallest iris knife, introduced a blunt hook, sought the iris by the pupillary margin, drew it out, cut off a portion, and replaced the rest.

Being almost certain the lens was present, and transparent, I was most careful not to wound it. I prefer to cut off a bit of the iris, rather than to strangulate it in the corneal wound, because it sometimes disengages itself, and so foils the intention; and when it does not, the pupil must generally be more at the margin of the cornea than in "excision." The new pupil is just behind the transparent strip of the cornea, and the vision is excellent. The lens is present.

FACIAL PARALYSIS FOLLOWED BY PLEUROPNEUMONIA,

TERMINATING IN GANGRENOUS ABSCESS OF LUNG OPENING EXTERNALLY.

By JOHN W. GOODWIN, M.D., Cantab.
Physician to the Norfolk and Norwich Hospital.

Francis Bunn, aged 29, a light porter, was admitted under my care into the Norfolk and Norwich Hospital on the 1st of November, 1856. His condition on my first seeing him was most deplorable—pale, emaciated and perfectly

unable to walk; he was carried into the ward. It appeared from those who came with him that in the previous May he had been exposed to cold and wet, and had an attack of inflammation of the internal ear on the right side, which terminated in an abscess bursting into the throat—deafness and perfect paralysis of the muscles of the right side of the face ensuing. On admission there was perfect deafness in, and a fetid purulent discharge from, the right ear; the integument over the mastoid portion being tender and easily indented by the fingers.

He complained of a good deal of pain just at the articulation of the jaw, and over the right eye, and the whole right portion of the scalp. This pain was of a most agonising character, and he would scream most terribly at times. There was some loss of sensation on the right side, and all the muscles of the face were paralysed—there was also hanging of the cheek, and a good deal of difficulty in moving the jaw in a lateral direction.

The treatment pursued was to support his strength by stimulants and beef-tea enemata, and quinine in very large doses, that is 8 grains every 4 hours at first; this acted like a charm upon his severe pain. The ear was syringed, and slight counter-irritation was employed. Under this plan he recovered his strength pretty fairly, and his power of swallowing and mastication; and on January 20, 1857, he was made an out-patient with the facial paralysis much the same; the deafness was improved, and the discharge from the ear still abundant and dependent upon disease of the temporal bone; the membrana tympani was destroyed.

On Feb. 14th I again saw him, having been absent from home for a short time, and I found him complaining of pain in the left side on taking a deep breath, and general ill-health.

I made him become an in-patient, and found on examination that he was suffering from pleuropneumonia of the left lung. He was treated cautiously with antiphlogistic remedies and blisters—but his condition seemed not to indicate either antimony or mercury. He gradually got better, and then continued for a long time in the same condition, but not getting either much better or much worse; he had very little appetite, and any meat served to cause nausea—his urine was very dark coloured and loaded with lithates, and his pulse continued most provokingly high. I examined his chest from time to time, and there was slight impairment of percussion sound, at the lower part of the lung, both anteriorly and posteriorly, and some rather large crepitation at different parts.

On the 26th Feb. he was seized with severe dyspnœa and he struggled for his breath like a man with spasmodic asthma, becoming black in the face. When I saw him he was very much exhausted, but the dyspnœa had gone off in a measure. There was general dulness over the whole of left lung, and very little respiratory murmur could be heard, and no vocal fremitus; expectoration was scanty, and frothy white coloured. He had some senega and ammonia and ether, and a large blister at the back of his chest.

Another severe attack of dyspnœa followed very soon, and he was ordered some Mist. moschi, which relieved him immediately, and he had some to take whenever he felt the attacks coming on. He now began to expectorate much more freely, and the sputa was clearly purulent and very offensive. He continued in this condition until the 4th of March, taking plenty of brandy, eggs, and wine, and his musk about twice daily. On March 5th, I find by my notes that he was better, but complained of a heavy feeling, and occasional sharp pain under the left nipple. I found a portion of integument, about as large as the hand, immediately below the left nipple, which had a faint blush, and the temperature greater than the other parts of the chest. Percussion gave a dull sound over it, and but little respiration could be heard; but he does not take deep inspirations at all, and most of the work is done by the right lung. There is some tubular breathing just over the nipple, and posteriorly respiration has become bronchial at the upper and middle part; at the base small crepitation.

A poultice was applied, which gave ease, and the next day there was evident bulging of the ribs, and the intercostal spaces anteriorly were quite obliterated below the nipple. The blush has become more manifest and less extensive, and at one point matter seems very close to the surface, and the integument rises and falls synchronously with the heart's beat. He continues to expectorate a very large quantity of horribly fetid pus, gangrenous in fact. I considered that I had to deal with either a circumscribed abscess of lung, or an encysted empyema; but I thought the former more probable, and that gangrene was taking place. I determined to allow the collection to open where it was endeavouring to do so, just between the fourth and fifth ribs, and this occurred on March 8, and about three pints of very fetid, dirty-coloured pus was discharged, the opening being about as big as a pea, and at every inspiration air was drawn in and returned with a whizzing noise in expiration, and the fetor of the breath rendered the ward almost unbearable. He continued for a long time in a most critical condition, and was reduced to very extreme debility, though he had brandy, wine, eggs, etc., ad libitum, and bark and ammonia. He ceased to expectorate as soon as the matter burst out, and there was another large discharge, about one and a half pints from another aperture, close to the first, four days afterwards. From this time, until his discharge on June 20, he slowly improved. The physical signs were of a large cavity in the central portion of the lung. The wound in the side discharged most copiously for many weeks, and most fetid was the pus; whenever he coughed he could empty the cavity of its contents. There was a portion of necrosed rib to be seen, and a portion of integument about an inch square sloughed away. During the last three weeks of his stay in the Hospital, several small scales of dead bone came away, and on his being made an out-patient the wound had completely granulated. I found the physical signs the other day (June 27), as follows:—Percussion sound, impaired over the lower anterior portion of lung, not resonant under the clavicle. Respiration quite clear anteriorly over whole lung, except just round the wound, where there is some small crepitation. Posteriorly, percussion sound, impaired, and though a good deal of air enters the lung, it does so imperfectly; but no evidence of any cavity appears now. The wound is perfectly healed, and the patient walked up to my house to-day.

I think this case in its complications and its fortunate result, so interesting that I have been induced to publish this rather long account. It serves only as one more proof of how powerful nature is in performing cures, provided she be only assisted and seconded in every way by the Physician. The patient was so debilitated, and had so little stamina, that any kind of treatment was almost useless; the great point was to support or increase, if possible, what little strength he had, for I attribute the recovery mainly to the fact that he was able to take so freely of stimulants and nourishing food of all kinds.

THE LONDON

PRACTICE OF MEDICINE AND SURGERY.

STATISTICAL REPORT OF THE PRINCIPAL OPERATIONS PERFORMED DURING THE SECOND QUARTER OF 1857.

[(Continued from page 375.)

The subjoined report includes as usual the following Hospitals:—University College, King's College, St. Bartholomew's, St. George's, Guy's, St. Thomas's, the London, the Middlesex, the Westminster, Charing-cross, St. Mary's, the Metropolitan Free, the Marylebone, the Hospital for Sick Children, and the Dreadnought Seaman's Hospital.

HERNIOTOMY.

Case 31.—University College; Mr. Thompson.—A man, aged 19, hernia congenital; strangulated 36 hours; sac opened. Phagædena attacked the wound from contagion from another case in the ward. It was however arrested by the use of the nitric acid, and the man made a good recovery. *Case* 32.—St. Bartholomew's; Mr. Lloyd.—A man, aged 34, hernia scrotal; strangulated 36 hours; sac not opened. Recovered. *Case* 33.—St. Bartholomew's; Mr. Lloyd.—A woman, aged 62, hernia femoral; strangulated 48 hours; sac not opened. Recovered. *Case* 34.—University College; Mr. Quain.—A man, aged 26, hernia inguinal; strangulated

17 hours; sac opened Recovered. *Case* 35.—University College; Mr. Quain.—A woman, aged 68, hernia femoral; strangulated three days; sac not opened. Recovered. *Case* 36.—University College; Mr. Quain.—A man, aged 47, hernia inguinal; strangulated 24 hours; sac opened. Recovered. *Case* 37.—University College; Mr. Erichsen.—A man, aged 31, hernia femoral; strangulated 9 hours; sac not opened. Recovered. *Case* 38.—University College; Mr. Erichsen.—A woman, aged 31, hernia femoral; strangulated 48 hours; sac not opened. Recovered. *Case* 39.—University College.—A woman, aged 64, hernia femoral, of large size; strangulated 36 hours; sac opened. The gut was found much inflamed, but was returned. Peritonitis; recovery. *Case* 40.—King's College; Mr. Lee.—A man, aged 42, hernia femoral; strangulated six hours; sac not opened. Recovered. *Case* 41.—King's College; Mr. Partridge.—A woman, aged 27, hernia femoral; strangulated 30 hours; the sac was opened and found to contain omentum only. Recovered. *Case* 42.—St. Bartholomew's; Mr. Skey.—A lad, aged 17, hernia congenital; strangulated 24 hours; sac opened; bowel much congested. *Case* 43.—St. Bartholomew's; Mr. Skey.—A man, aged 40, hernia inguinal; strangulated two days; sac opened. Recovered. *Case* 44. St. Thomas's, Mr. Le Gros Clarke.—A man, aged 63, hernia femoral; strangulated two days; sac opened. A double sac was found. Recovered. *Case* 44.—St. Thomas's, Mr. Solly.—A man, aged 30, hernia femoral; strangulated four days; sac not opened. Recovered. *Case* 45.—Guy's; Mr. Birkett.—A feeble woman, aged 54, hernia femoral; strangulated 56 hours; neither sac or fascia propria opened. Recovered.

EXCISION OF JOINTS.

Case 1.—St. Thomas's: Mr. Solly.—A man, aged 27, in very reduced health from disease of the knee-joint of a year's duration. Numerous sinuses existed, and there had been profuse discharge. The articular surfaces of the three bones were sawn away in each instance very superficially. The man afterwards sank, death taking place about three weeks after the operation.

Case 2.—St. Thomas's: Mr. Simon.—A man, aged 42, in very delicate health. Disease of the ankle-joint had existed for three years, and several sinuses existed. Excision of the articular surfaces of the tibia, fibula, and astragalus was performed, the latter bone being very extensively diseased. The patient sank, and died on the 4th day.

Case 3.—St. Thomas's: Mr. Simon.—A man, aged 40, the subject of disease of the extremity of the humerus. A piece of necrosed bone had been removed some months previously, and on the present occasion a partial excision of the joint was performed, the outer condyle being wholly cut away. The ends of the other bones being sound, were allowed to remain. Recovered well, but the joint will probably be stiff.

Case 4.—The Dreadnought: Mr. Tudor.—A Lascar, aged 30, under care on account of disease of the left elbow-joint. Several sinuses existed, and he was much reduced in health. Excision of the lower fifth of the humerus, of the ulna below the coronoid process, and of the articular inch of the radius was performed. It was the separation of the periosteum, and the roughened state of the bones, which rendered such an extensive resection needful. The man has done remarkably well, and the wound is now nearly healed. As yet there is not much power of voluntary movement.

Case 5.—St. Thomas's: Mr. South.—A boy, aged 9, under care on account of disease of the knee-joint, of strumous character, and of six months' standing. Resection of the articular ends of the bones on May 30. Favourable progress.

Case 6.—St. Thomas's: Mr. Le Gros Clarke.—A boy, aged 15. Disease of the elbow-joint, of a year's standing. Excision on May 23. Doing well.

Case 7.—St. Thomas's: Mr. South.—A woman, aged 40, in very fair health, the subject of disease of the knee-joint of three years' standing. Excision of the whole articulation on May 23. Death on July 9.

Case 8.—The Westminster: Mr. Holt.—A woman, aged 23, in very feeble health. Disease of the knee-joint had followed an injury received seven weeks before admission. After six weeks' further treatment it became manifest that excision presented the only alternative to amputation, and it was accordingly performed on June 23. The curved incision was practised, and about an inch of the femur, and half an inch of the tibia sawn away, the patella not being interfered with. The cartilage was ulcerated on the posterior part of the outer condyle, and the corresponding surface of the tibia; the synovial membrane was pulpy and thickened, and an abscess, which communicated with the joint, extended up the back part of the femur. The tendons of each side were divided. She bore the operation remarkably well, and less constitutional disturbance followed than is usual after amputation. The limb is at present quite straight, and the wound nearly healed.

Case 9.—The Westminster: Mr. Holt.—A very delicate boy, aged 4. Admitted on account of necrosis of the femur, extending into the knee-joint, and of two years' duration. Three sinuses existed, two of which led down to diseased bone. Upon opening the joint by the usual curved incision, the cartilage of the external condyle was found wholly removed, together with that of the corresponding surface of the tibia. About three-fourths of an inch of the femur were sawn away, and half an inch of the tibia. In the extremity of the femur, as thus exposed, was a considerable cavity containing a sequestrum. The dead bone was removed, and the cavity gouged, leaving a mere circumferential shell. The patella being healthy was not interfered with, nor were the tendons divided, as the limb was easily brought into position. Considerable shock was felt at first, but afterwards he became comfortable, and is now doing very well.

Case 10.—The Westminster: Mr. Holt.—A boy, aged 7, in a wretched state of health from disease of the hip-joint of two years' standing. Considerable swelling existed, and there were several sinuses leading to diseased bone. The femur was not dislocated, but forcibly retained in the acetabulum by false anchylosis. The head and neck of the femur were sawn away, and some necrosed bone from the acetabulum also removed.

Case 11.—St. Bartholomew's: Mr. Coote.—A soldier, aged 28, in good health, admitted with disease of the elbow-joint of eight years' duration. A single long incision was practised, and the articular extremities of the three bones removed. Recovered well.

Case 12.—The Westminster: Mr. Hillman.—A boy, aged 3, the subject of diseased elbow-joint of three months' duration, and consequent on injury. Carious bone was easily felt, and as his health was beginning to suffer, excision was determined on. A single long incision was practised, and the extremities of the three bones were removed (July 7). Doing well.

ST. BARTHOLOMEW'S HOSPITAL.

CASE OF LARYNGOTOMY.

(Communicated by Mr. CHIPPENDALE, House-Surgeon.)

THE following case is a good instance of life having been preserved by the prompt performance of laryngotomy, under very desperate circumstances. It also illustrates the advantages of a patient trial of artificial respiration, without regard to the apparently hopeless state of the patient.

A beadle of the Hospital, aged 32. Laryngotomy was performed for œdema of the glottis supervening on acute tonsillitis. A considerable portion of the uvula had been removed the day previous, on account of its œdematous state not having been relieved by scarification, or by the application of caustic. At the time of removal, the uvula was about an inch and a half in length, and caused so much irritation of the glottis that he was unable to lie down.

About three quarters of an inch were removed, and the remainder shrank considerably. This at once gave relief to the severe dyspnœa from which he had been previously suffering. Acute laryngitis set in, about two hours afterwards, for which he was freely bled and leeched. The depletion was followed by decided improvement for a short time, but about four hours afterwards the dyspnœa again returned with great severity, and the man fell back, apparently dead.

Mr. Chippendale was immediately summoned, and at once opened the crico-thyroid membrane. At the time, the man was to all appearances dead, respiration had ceased, the pulse was not to be felt at the wrist, and the eyes were fixed. Artificial respiration was immediately had recourse to, and was maintained for more than ten minutes, before signs of returning animation appeared. It was, however, necessary to continue it for some time longer, for it was found that the respiration flagged and almost stopped when the artificia

inflation was discontinued. The Sister who was in attendance, estimates that nearly two minutes elapsed from the time that the man fell back and ceased to breathe, to the time the operation was performed, and judging from the distance that was traversed, it could not certainly have been much less. For the first thirty-six hours, the man was in a very precarious state, the pulse ranging from 140 to 160. But on the third day the pulse became steadier and less frequent, and from this time he progressed rapidly towards recovery. The wound closed within a fortnight.

HOSPITAL NOTES.

RARITY OF PYÆMIA AFTER HERNIOTOMY.

Those who have had large experience of operative practice have long been accustomed to observe on the exceeding rarity of death from pyæmia after the operation for hernia. We have it very frequently after amputations, not seldom after the removal of tumours, now and then after lithotomy, but almost never after herniotomy. Our list for the last three months, published last week, singularly enough contains no fewer than three examples of its occurrence In all the disease proved fatal. About a year ago a case occurred under Mr. Stanley's care, in St. Bartholomew's, but with that exception we scarcely recollect a single example of it prior to those referred to. Another class of operations after which pyæmia is even yet more infrequent, is that of removals of sequestra in cases of necrosis. And here it is fair to remark that a strong argument against the opinions of those who attribute pyæmia to the use of chloroform is contained in the fact just mentioned. Necrosis operations are often very tedious, and involve the patients being kept under the anæsthetic for periods usually three or four times as long as is requisite for an amputation, yet the latter is very often followed by pyæmia, and the former almost never. If we seek for the explanation of its rarity after hernia operations we shall have to presume two laws as established respecting it; 1st, that it is by far more apt to occur after injuries to large veins than under other circumstances; and 2ndly, that it is often conveyed by direct contagion, as from sponge, the surgeon's fingers, dress, &c. Now, neither hernia operations nor excisions of sequestra usually involve the division of large veins, nor do they require anything like the amount of dressing and of handling that a stump requires. In an amputation the hands of several assistants are commonly brought in contact with the cut surface, and repeated dressings are afterwards necessary, thus multiplying the chances of contagion.

THE UPPER AND LOWER SECTION OF THE CORNEA IN EXTRACTING CATARACT.

Mr. White Cooper has lately been testing the merits of the upper and lower section in extraction of cataract in thirteen cases in St. Mary's Hospital and the North London Eye Infirmary. The upper section was performed on six eyes, the lower section on seven. The results were as follows: Upper section: in all the cases the sections united well; in five there was good sight; in one the pupil is temporarily obstructed by opaque capsule, which however can readily be removed. Lower section: One eye suppurated, the patient being a very unfavourable subject; in another eye the pupil was drawn down in consequence of non-union of wound, and prolapse of the iris. Five recovered well with good sight. The case in which the pupil was dragged down was a flabby, elderly man with very feeble powers, and probably the subject of fatty degeneration. He had undergone extraction in the other eye in 1856, and recovered good sight, though the section was nearly a month in uniting.

HYSTERIC TYMPANITIS.

We mentioned a few weeks ago, a very interesting case under Dr. Ramskill care in the Metropolitan Free Hospital, in which the symptoms of an ovarian tumour were clearly simulated by what was believed to be hysteric tympanitis. A few days later, this opinion was fully confirmed by the employment of chloroform. As soon as insensibility was complete, the signs of tumour had wholly vanished, and the abdomen had sank down to an almost natural degree of distension. The fulness, however, has returned subsequently. The effective treatment of these cases is much more difficult than their diagnosis. Dr. Ramskill has already made trial of tonics and nux vomica, and of the fetid gums. It is proposed shortly to try the effect of galvanism. The following note received in reference to the case has been kindly placed at our disposal, and as it contains an instructive case in illustration of the usefulness of the chloroform mode of diagnosis, we print it entire.

"I have been much interested in a case reported in the last number of the *Medical Times and Gazette*, as being under your care, and headed Hysteric Tympanitis.

"I had a very similar case under my care not very long since, which caused me for a long time great anxiety, the sufferings of the patient were so extreme, and the apparently increasing pressure on the colon or rectum pointing to a most dismal termination of the case. I was so anxious about it that I had the young woman examined by all the leading accoucheurs here, and there was no dissentient opinion as to the nature of the case being an ovarian tumour, complicated &c., &c.

"For the more accurate examination of the case I had the woman placed under the influence of chloroform, and was most gratified to find that the entire tumour totally disappeared. I find since a very short but practical note on the subject by Dr. O'Ferral, in *The Dublin Hospital Gazette*, vol. i. N.S.

"I am, &c. "Samuel Gordon,

"Physician to the Richmond, Whitworth, and Hardwicke Hospitals."

DISLOCATION WITH UNUSUAL SYMPTOMS.

"One of the most constant and characteristic symptoms of dislocation, and one which seems to distinguish the injury from fracture, is the fixed condition of the limb. In some cases there is absolute immobility of the limb, so that it can neither be moved by the voluntary efforts of the patient, nor even by the surgeon. This complete immobility is usually found in joints which move only in a single plane—for example, it is particularly observed in dislocation backwards of the elbow."

These remarks will, doubtless, receive a very general assent, but a most remarkable instance to the contrary was seen the other day in the surgery of St. Bartholomew's Hospital. A middle-aged man presented himself with a simple dislocation of both bones of the right forearm backwards, which he stated had been caused by a fall from a cart. There was an extraordinary amount of mobility, indeed the parts about the elbow were so lax and admitted of such free motion in all directions that, at the first glance, it had the aspect of a comminuted fracture. Moderate extension with the forearm at an obtuse angle sufficed to reduce it. The natural relation of the bones was at once perfectly restored, and no fracture or other injury could be detected on a careful examination.

Mr. Lloyd, who saw and examined the case, stated that h had never seen a similar one.

Illegitimate Births in Vienna.—It appears, from the statistics published by the Common Council Bureau o Vienna, that the number of illegitimate births in that city has almost equalled the number of the legitimate births during the four years from 1853 to 1856. The following are the figures on the subject:—In 1853, the legitimate births, 11,264; illegitimate, 10,686. 1854: Legitimate, 11,252; illegitimate, 10,801. 1855: Legitimate, 10,650; illegitimate, 2,522. 1856: Legitimate, 10,870; illegitimate, 10,311.

Like and Unlike.—The following strange comparison is made by Dr. Hoffman and Mr. Witt in one of their reports to the referees on the drainage of London:—"The valuable constituents of sewage are like the gold in the sand of the Rhine, its aggregate value must be immense, but no company has yet succeeded in raising the treasure."

Miss Jane Shaw Stewart, so well known for her exertions in the Crimean Hospitals, has repaired to the great General Hospital at Vienna, in order still further to study the subject of hospital organisation. She is to remain three months, and the authorities have provided her with a commodious residence within the Hospital, and have directed that every explanation and facility should be afforded her.

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Medical Times & Gazette.

SATURDAY, OCTOBER 17.

PROFESSIONAL ENCOURAGEMENT OF EMPIRICISM.

The following sentence concludes the Report of the Surgical Staff of the Middlesex Hospital to the Weekly Board and Governors upon the treatment of Cancerous Diseases in the Hospital on the plan introduced by Dr. Fell. The Report is printed by order of the Quarterly Court, and has just been published by Mr. Churchill.

"*Incisions.*—The last peculiarity of this treatment is the practice of incisions; and we are of opinion that this is its only, but its very great merit. The sanguinaria is inert; the chloride of zinc paste was known before; but the incisions constitute a new feature in the treatment of cancerous tumours, for which we find no parallel in the writings of the past, or in the practice of present Surgeons. Cancer, in its constitutional nature, remains as ruthless and as unassailable as ever. Chloride of zinc may, or may not continue to be used for the destruction of the local disease. But the advantage placed in the hands of Surgeons by the invention of gradual incisions, claims henceforth their very frequent adoption in the treatment of cancerous tumours, as well as a grateful acknowledgment of the ingenuity of their inventor.

(Signed)
"Alexander Shaw. Charles H. Moore.
Campbell De Morgan. Mitchell Henry.
"August, 1857." P. 50.

Just before this passage the following remarks occur:—

"By the invention of the method of introducing caustics by gradual incision, a very important advantage is gained: it admits to the benefit of treatment an entirely new class of those who suffer from Cancer—a class hitherto almost universally abandoned, at least in England—we mean, patients precluded, by the judgment of the Surgeon, or it may be by their own choice, from the use alike of the knife or of ordinary caustics. In the cases now reported on, the majority of the patients were of that class, and in none was the value of the treatment more conspicuous. The average of pain was in these very patients the least; and nothing could be more striking than the contrast between the distressed condition of such patients before they were treated, and their comparative ease afterwards; healing sores or temporary scars taking the place of fetid, tender discharging, and constantly growing masses of cancer. Every such patient restored to comfort, and with life prolonged, is a witness to the value of this treatment; and we cannot but esteem him happy, who could thus suggest and adapt to practice a method by which life and ease are extended to many persons previously without hope of either."—P. 47.

Now, let us ask, Are British Surgeons to offer up their "grateful acknowledgment of the ingenuity of" Dr. Fell? Can the Profession of this country join in the encouragement given by the Surgical staff of the Middlesex Hospital to an American, who professed to cure cancer by a secret preparation, and who still professes to cure cancer? Shall such a testimonial as that we have quoted be copied into the newspapers of this kingdom, and from them be disseminated all over the continent, to proclaim the triumph of American Empiricism over British Surgery? Are we to hail as a great benefactor of the human race a person who, if we may judge by what is said of him by the Medical journals of New York and Philadelphia, most certainly is not a "prophet in his own country"? Let us see:—

The Surgical staff of the Middlesex Hospital admit that Dr. Fell has not given us any new remedy. "The sanguinaria is inert; the chloride of zinc paste was known before." Yet it is this very sanguinaria, this *puccoon*, which Dr. Fell holds up in his work as "an active agent, exerting a specific effect upon cancerous matter," one which can "destroy the cancerous diathesis." (Fell on Cancer, p. 57.) The chloride of zinc, according to Dr. Fell, is only useful by hastening the local action of the *puccoon*, leaving the action "slow enough to allow its complete absorption, thereby enabling it to exert its peculiar constitutional effects." (Op. cit. p. 59.) In our review of Dr. Fell's book (*Medical Times and Gazette*, June 6) we ventured to express "our conviction, that this sanguinaria has little or nothing to do with the results of the application, and that the chloride of zinc is the only active agent;" * * * This opinion, as we have seen, is proved to be correct by the Surgical staff of the Middlesex Hospital. Yet Dr. Fell's book is before the public, claiming for his remedy specific curative powers and marvellous virtues, in a style we need not enlarge upon. He must now give up his claim to the power of curing cancer. The Middlesex Hospital settles that part of the question; although it may be difficult to make the public understand that it is for something else we are to offer him our "grateful acknowledgments."

However, it is not as the discoverer of a cure for cancer that the Surgical staff of the Middlesex Hospital claim our grateful acknowledgments for Dr. Fell. It is for the "invention of gradual incisions." The account of this invention occupies just four lines in Dr. Fell's book, so that his own opinion of the importance of this invention would not appear to be very great, although he adds that the plan "is believed to be entirely original." In our review of his book (*loc. cit.*), we thought we had shown that it was *not* original, and, so far as his own account of this practice went, we were certainly correct. We quoted a passage from Justamond, showing that this old Surgeon hastened the action of caustic by scarifying the destroyed surface, and inserting the caustic into the scarifications. But it seems, from the Middlesex Report, that Dr. Fell does something more than this. After a superficial slough has been formed, the "characteristic process in the treatment of Dr. Fell" commences:—

"Parallel scratches or shallow incisions were made along the charred skin, for the purpose of inserting into them strips of calico, smeared with the paste. These incisions varied in number, being usually made about half an inch apart, but sometimes there were not more than four in a breadth of five or six inches. They were carried along the whole length of the eschar, and to a depth somewhat short of the living tissues beneath. For the first two or three days they were seldom deep enough to lodge the strips of calico; still even the scratches sufficed for the percolation of the remedy into the subjacent living parts. Each day the incisions were a little deepened, and fresh strips of anointed calico, or rolls of cotton wool covered with the paste, were inserted into them, until in the course of from two to seven weeks, the average time being about three weeks, the whole depth of the tumour was penetrated; and then the use of the paste was discontinued, and the eschar left to separate."—Pp. 16, 17.

This is certainly something more than Justamond did. His scarifications are carried on by Dr. Fell till they become daily incisions. This is something—not much perhaps—but is it an invention of Dr. Fell? Is it for this that British Surgery is to

bow the knee in "grateful acknowledgment?" Is this "a new feature in the treatment of cancerous tumours for which we find *no parallel in the writings of the past, or in the practice of present Surgeons?*" We say again, Let us see.

In the *Archives Générales de Médecine* for January, 1857, will be found an account by M. Girouard, of Chartres, of a plan of removing limbs and breasts by caustics, which he had adopted since 1841. Relating a case of partial amputation of the foot by caustic in 1841, he says, "I applied a layer of Vienna paste from a sixth to a fifth of an inch thick, and a third of an inch broad. Twenty minutes afterwards, the skin being completely cauterized, I divided the eschar throughout its whole extent, and I pressed into the fissure morsels of zinc paste, about an eighth of an inch thick. The next day, having again divided the eschar and separated the borders of the fissure, I placed at the bottom, portions (*bandelettes*) of zinc paste about a quarter of an inch thick. Twenty-four hours afterward, I again deepened the fissure by dividing the eschars."—P. 83.

Can any description be more accurate than this of the "characteristic process" of Dr. Fell? The Vienna paste is substituted for nitric acid, it is true, but the daily incisions and the introduction of the zinc paste are identical. The practice has been followed by M. Girouard since 1841. Since 1849 it has been extensively followed by MM. Salmon and Manoury. A paper by these gentlemen was published in the *Union Médicale* in 1856, (pp. 441, 446, 474, and 487,) upon amputation by caustics. The account of the method of operating upon two cases in 1849 is fully detailed. The skin in the direction of the flaps is destroyed by Vienna paste, and then, says M. Salmon, "Upon this eschar the bistoury first traced a mere scratch (*leger sillon*); then I incised the mortified skin with scissors, constantly avoiding the production of pain. The dressing was terminated by the application of a caustic paste of chloride of zinc and alum divided into strips (*lanières*), and implanted in the furrow resulting from the incision of the skin." Here MM. Salmon and Manoury append the following note:—"To be just to all, it must be said that we imitated this operative proceeding after what we had seen done by M. Girouard, physician, of Chartres, in the removal of tumours of the breast. In this respect, also, we imitated M. Canquoin, whom M. Girouard had seen operate in Paris under circumstances of which the latter has informed us." (We may observe that Canquoin first made a secret of his caustic, but his Memoir was published in Paris in 1835). M. Salmon goes on with an account of his second proceeding in the evening—"I removed the strips of caustic placed in the morning; I lacerated the eschar produced by scraping it with a spatula on the point of a bistoury, then I re-applied more strips of caustic as before," and so on through details we need not follow. These amputations of limbs and breasts by M. Girouard and Messrs. Salmon and Manoury, have been a good deal talked of. Our French neighbours have been laughed at for their return to the barbarous ages of Surgery, for even thinking of amputating by anything but the knife. Our Yankee friends have laughed as loudly as anybody, and whether Dr. Fell did or did not learn his "characteristic process" from the French Surgeons, it must be very strong proof indeed which would induce us to join in offering him our "grateful acknowledgments" for introducing it into this country.

And now one word as to the part taken by the Surgical staff of the Middlesex Hospital in this affair. We were never disposed to judge their conduct harshly; on the contrary, we have again and again expressed our opinion that, under the circumstances of the case, they acted for the best, and we believe that if their first testimonial to Dr. Fell and their present report had not been published, or had been drawn up in a more strictly professional spirit, great good would have resulted from the exposure of the humbug of the secret remedy, and the narrowing of the claims of Dr. Fell to his acknowledged power of removing cancerous growths by chloride of zinc in a manner not generally known or practised in this country. But their first testimonial (given a few weeks only after the treatment had commenced, while the application was still kept secret), and the present report, drawn up as it is with extreme care and ability, form in our opinion a most unfortunate chapter in the history of British Surgery. A man who has made use of a secret application for his own profit, who has professed to cure cancer by a vegetable which this very Surgical staff has shown to be inert and valueless, whose sole claim to any merit rests upon a "characteristic process," in which he was partly anticipated by a British Surgeon, and most completely so by French Surgeons, is not only tolerated under the peculiar terms of the Cancer endowment of the Middlesex Hospital, but his position before the public is strengthened by the sanction of the Surgical staff of this Hospital, who do not say one single word in reprobation of the secresy in which the invention was so long shrouded, and for which they now claim "grateful acknowledgments" which most certainly are not deserved. Had they, while acting up to the terms of Mr. Whitbread's will, expressed the distaste with which they felt bound to become parties to a secret mode of treatment;—had they, before granting a testimonial, satisfied themselves as to the powers of the only new remedy used;—when, at last, they had become convinced of the sanguinaria delusion, had they plainly expressed the feelings which, as honest men, they must entertain of the manner in which this vegetable had been introduced;—had they, before claiming the "grateful acknowledgments" of the Profession for the only peculiarity in the treatment, made themselves acquainted with the real history of the "invention;"—and had they spoken out plainly in reprobation of a man who had professed to cure cancer by a new remedy, but who could only remove cancerous growths by an old caustic, used in a manner for which he unjustly claimed originality,—great good might have resulted. As it is, we fear the tendency of the report will be to encourage empiricism, and lower the tone of professional feeling in this country.

We write all this with extreme reluctance, knowing the gentlemen from whom we differ to be among the most honourable and highly esteemed members of our profession in London; and knowing also that in what they have written they, like ourselves, have put aside all personal considerations, and have performed what they believe to be a public duty. While regretting extremely, therefore, the tone they have adopted towards a promulgator of a worthless secret remedy, and the supposed inventor of a new method of applying an old caustic, we are content with expressing this regret, and are far from joining in those harsh denunciations which have been heard both here and abroad. It would have been far more agreeable to us simply to give the authors of the Report the credit they well deserve for a really valuable contribution to practical Surgery; but still it is high time that a very decided stand should be made against that spirit of latitudinarianism which is gaining ground in various ranks of the profession in London. There is a great tendency just now to encourage irregular practitioners. Homœopathists, and mesmerists, kinesipathists and cancer-curers are met in consultation by men who should know better; and the old-fashioned, English, honest dislike of quacks and their secret remedies is fast fading away. But this subject is a painful one, and we will conclude with an extract from the *North American Medico-Chirurgical Review* for September last. It occurs in a notice of Dr. Fell's work on Cancer, amid strictures upon the

author very much more severe than any criticism he has met with on this side the Atlantic.

"If," says the reviewer, "falsehood, often in the very title of the quack remedies, as well as in the announcements of their general properties and composition, and of their immediate and remote effects; if deception in withholding all public knowledge, not only of their nature and composition, but also of the circumstances under which they must necessarily prove injurious,—thus deluding thousands in every community into a belief of the entire safety, as well as the benefit, with which they may be used by all persons at all times—if, we say, these be praiseworthy acts, entitled to the countenance and support of truth-loving, honest, and religious men, there is an obvious necessity for a new standard of religion, and a new code of morality, different from those which have hitherto been thought binding."

THE WEEK.

Cholera, in a virulent form, is among us again. We have been informed by Dr. Elliot, of Stratford-green, that he has had twelve cases, of whom six have died, in a row of small houses in Westham parish, about a hundred yards from the River Lea and two miles from the banks of the Thames. The first case occurred on the 8th inst., and was fatal in ten hours. All the other cases occurred in the same row of houses, and there has been no other case in the parish, which contains 30,000 inhabitants. Dr. Elliot has made most searching inquiries as to the origin of the disease, but has not been able to arrive at any satisfactory conclusion. The district lies low, and bad smells have been complained of lately after the opening of certain sluices. Some cattle from Hamburg have been kept in a field near the houses where the first cases have occurred; but Dr. Elliot has not been able to trace any connexion between this fact and the commencement of the epidemic. We are informed that there was no premonitory diarrhœa in any of the cases, the suddenness of the attack adding to the difficulty of combating it, the patients falling into collapse almost without warning. It will be necessary to institute the most searching inquiry, in order to discover if possible if the disease has originated here, or has been introduced from abroad.

"Give a dog a bad name, and hang him," is a proverb specially applicable to the younger members of our Profession. This has been strikingly brought out in relation to the finding of the bones of a murdered man on a buttress of Waterloo Bridge on Friday last. It has been suggested that the bones and other parts of the human body thus found were placed there by some Medical Students, as a practical hoax to horrify the British lieges. In the name of common sense, as well as in behalf of Medical Students in general, we entirely repudiate such a supposition. Setting aside the fact that the season has but recently commenced; that since the 1st instant not one subject can have passed through the anatomist's ordeal; that no subject could be removed wholesale without the knowledge of the Anatomical Professors, and that the mutilated remains have evidently been divided by unscientific hands:—setting all these facts aside, we assert that this is just the kind of hoax or practical joke that a Medical Student would *not* perpetrate. Medical Students are not given to jokes of this class. They hold it as a point of honour to play no tricks with the human body. Scalpel work with them is a laborious, not over-pleasing, and serious occupation; and when they have finished their labour they are sufficiently wearied of it, to let the remains of their subject pass quietly to the grave in accordance with the Act by which their studies are rendered legal and allowable.

We deeply regret to have to announce the decease of Dr. Bellingham, favourably known to the Profession by his published treatises on the cure of aneurism by compression and on diseases of the heart. His death took place on Sunday last, in his 52nd year. Dr. Bellingham, the third son of the late Sir Alan Bellingham, Bart, the second Baronet, of Castle Bellingham in the county of Louth, was born on the 12th of December, 1805, and from the death of his second elder brother in 1836, to the birth of his nephew in 1846, he was the heir to the baronetcy. He was chairman of the Court of Examiners in the Royal College of Surgeons in Ireland, Surgeon to St. Vincent's Hospital, Dublin, and Secretary to the Surgical Society of Ireland. Mild and gentlemanlike in his demeanour, he was beloved and respected by all who had the advantage of his acquaintance, and his removal at an age when many years of usefulness were still apparently before him, has caused an universal feeling of regret among his professional brethren.

A good deal of interest has been excited on the continent by the supposed discovery of the tomb of Hippocrates near Larissa in Thessalia. We have the authority of Soranus for the belief that Hippocrates died at Larissa, and that his tomb was shown between that town and Gyrton. It appears that in 1826 some peasants discovered a sarcophagus near Larissa, after an inundation; and two Greek gentlemen, named Andreades and Œconomides, discovered an inscription on the lid, the letters ΙΠΠΟΚΡΑΤ being plainly visible. Nedjib-Bey, the Turkish governor, had the tablet carried off, and some coins and a gold chain which were in the sarcophagus were stolen. This year Dr. Samartsides found the tablet in the house of the bey, and copied the following inscription in ordinary Greek characters:—

. . . . ΙΠΠΟΚΡΑΤ . . . . ΚΩ . . . . ΑΓΛΑΟΦ . . .
. . . . . ΣΩΜΑ . . . . . .
ΠΟΛΕΙ . . . . . ΜΕ . . . . . ΤΕΛΕΣΦ . . .
ΑΓΑΘΗ . . . . . ΑΡΕ . . . . . ΕΝΕΚΑ . . .
. . . . . ΧΡΗΣΤΕ . . . . . ΧΑΙΡΕ.

He says he concludes from the form of the letters that they are very ancient. There are traces of effaced letters in the spaces marked by dots. The sarcophagus remains perfect in the spot where it was found. It remains for some professed antiquary to restore the lost letters, and seek for their interpretation; but nothing satisfactory can be done without an exact copy of the inscription either by photography or a mould, as it is by the form of the letters and the mode in which they are cut, that the age of the inscription must be determined. The name Hippocrates is, and has been, a very common one in modern as in ancient Greece, and we want something more than the mere inscription of this name upon a stone before it can be decided whether the tomb found near Larissa is or is not that of the father of medicine.

The greatest activity has been shown at the Army Medical Department in providing for efficient medical attendance upon our sick and wounded soldiers in India. Estimating the force of the Royal army at 60,000 men, Dr. Smith has decided upon keeping up a corps of 400 Medical officers in India. Considering the amount of sickness from climate and exposure, this apparently large proportion of Medical officers is by no means uncalled for. There are nearly 300 medical officers now in India attached to the Queen's forces, including a certain number of Company's officers whose services have become available by the disbanding of the Sepoy regiments, and who will do duty temporarily with the Army Medical officers. More than sixty sailed on Monday for India, including Dr. Linton, Inspector-General,

four Deputy-Inspectors, four First-class Staff-Surgeons, twenty-five Second-class Staff-Surgeons, and thirty Assistant Surgeons. Within the last two months fifty Assistant-Surgeons have been examined and admitted into the service; and it is expected that fifty more will be admitted before the close of the year. Every precaution has been taken to secure a full supply of medicines and medical comforts for the use of the troops; and if other departments do their work as well as the Medical Department we shall have no cause to complain of a repetition of Crimean misfortunes in the East. The number of candidates for Assistant-Surgeoncies has been much larger since the prospect has opened of active service in India; and the hope hasbeen entertained that the recommendations of the Royal Commissioners for the improvement in the rank, pay, and position of the Army Medical officers will be acted upon by Government. The applications for appointments as dressers and dispensers are very numerous (we are informed as many as fifty daily); and to prevent disappointment we may direct attention to a notice in our advertising columns that no dressers or dispensers are now wanted.

Mr. Wood of Shrewsbury and the Gresham Life Office have had a little correspondence, which is far too good to be left unrecorded. In reply to a letter from the office with the usual list of questions, Mr. Wood wrote to ask if the office intended to pay the usual fee, and received the following answer:—

"Sir,—I regret that you should hold the opinions you do with respect to life offices: but finding you do so, I have no alternative but to request Mr. Hughes to appoint another referee."

Mr. Wood gave a Roland for the Oliver.

"Sir,—I regret that you hold the opinion you do with respect to the Medical Profession; but finding you do so I have no alternative but to recommend my patient to insure in another office, which I have done."

The result was that the patient insured in the Crown office, and the Gresham lost the business. A few such cases as this would soon bring the few remaining shabby offices to their senses. We happen to know of a case lately in which a consulting Surgeon at the West-end induced a patient who was about to effect an insurance of twelve thousand pounds in one of the begging-letter offices, to do so in one of the offices which act justly towards the Medical profession.

An active canvas is going on for the Surgeoncy of the Orthopædic Hospital, vacant by the death of Mr. Lonsdale. The candidates are the two Assistant-Surgeons, Mr. Brodhurst and Mr. William Adams. A point of some importance is involved in this election. It appears that Mr. Brodhurst and Mr. Adams were elected to the Assistant-Surgeoncies on the same day, but that as Mr. Brodhurst had obtained a considerable majority of the votes of the Governors, he was assigned by the Committee the position of Assistant to the Senior-Surgeon, while Mr. Adams became Assistant of the Junior-Surgeon. Mr. Brodhurst's strong points are that the majority of the votes of the Governors, the position in the Hospital assigned him by the Committee as Assistant to the Senior-Surgeon, and the placing of his name on the books and papers of the Hospital before that of Mr. Adams, give him a claim, according to general custom, to succeed without opposition to the Full Surgeoncy. Mr. Adams rests his case on the following Resolution of the Committee of Management, carried eight days after this election:—

"Resolved,—That the two Assistant-Surgeons, having been elected on the same day, they are essentially equal; but that Mr. Brodhurst having obtained the largest number of votes, he be assigned to Mr. Tamplin as his Assistant-Surgeon, and Mr. Adams as Assistant to Mr. Lonsdale."

Being "essentially equal" in the Hospital, Mr. Adams contends that his position of Member of the College of 1842, and Fellow of 1851, gives him seniority over Mr. Brodhurst, who is a Member of 1844, and has not obtained the Fellowship. Mr. Brodhurst replies that the Committee had no right to pass any such resolution; that it was an assumption of power which rests only with the Governors; and that a recognition of the other claims of Mr. Adams would be contrary to the rules of the Hospital. The questions at issue do not admit of easy solution, and we do not feel called upon to express any opinion on the subject; but it is to be regretted that both parties could not agree to arrange the affair by reference to a few mutual friends of high standing in the Profession, rather than engage in a troublesome and expensive canvas.

The Chairs of Clinical Surgery and Clinical Medicine at the Imperial Joseph's Academy of Vienna have just been filled. Professor Pitha, of Prague, has been nominated to the former, and Professor Duchek, of Heidelberg, to the latter. This practice in Germany of "calling" Professors from the minor Universities and Schools to those of more importance, acts as a great incentive to exertion. In this way many distinguished men now living, having attracted attention by the abilities they formerly manifested at the small schools, have been transferred to the lucrative posts they now hold.

The week has been signalized by the opening meeting of the National Association for the promotion of Social Science. Lord Stanley, President of the Department of Public Health, gave an excellent address. The concluding portion is too good to be lost.

"Dry and unattractive as sanitary studies may ap pear, they belong to the patriot no less than the philanthropist; they touch very nearly the future prosperity and the national greatness of England. Don't fancy that the mischief done by disease speeding through the community is to be measured by the number of deaths which ensue. That is the least part of the result. As in a battle, the killed bear but a small proportion to the wounded. It is not merely by the crowded hospitals, the frequent funerals, the destitution of families, or the increased pressure of public burdens, that you may test the suffering of a nation over which sickness has passed. The real and lasting injury lies in the deterioration of race, in the seeds of disease transmitted to future generations, in the degeneracy and decay which are never detected till the evil is irreparable, and of which, even then, the cause remains often undiscovered. It concerns us, if the work of England be that of colonization and of dominion abroad,—if wild hordes and savage races are to be brought by our agency under the influence of civilized man,—if we are to maintain peace, to extend commerce, to hold our own among many rivals, alike by arts and arms—it concerns us, I say, that strong hands shall be forthcoming to wield either sword or spade—that vigorous constitutions be not wanting to endure the vicissitudes of climate and the labours of a settler in a new country. I believe that whatever exceptions may be found in individual instances, when you come to deal with men in the mass, physical and moral decay necessarily go together; and it would be small satisfaction to know that we had through a series of ages successfully resisted every external agency that if we learnt too late that vigour, and energy for which ours stands confessedly preeminent among the races of the world were being undermined by a secret but irresistible agency, the offspring of our own neglect, against which science and humanity had warned us in vain."

REVIEWS.

Discussion i det Norske Medicinfske Selskab i Christiania angaaende Syphilisationen. (Copie af Norsk Magazin for Lægevidenskaben.) Christiania. Werner og Comp. 1857. 8vo, pp. 162.

Discussion in the Norwegian Medical Society in Christiania on the subject of Syphilisation. (Extracted from the Norwegian Magazine of Medical Science.)

Undersagelser angaaende Inoculation af Vaccine og Chankermateric, for at constatere Immunitetsforholdene og deres Consequentser. Ved Dr. F. C. Faye, Professor i Accouchement, Fruentimmer og Börnesygdomme ved Universitetet; Overlæge ved Födselsstiftelsen og Börnehospitalet i Christiania. (Copie af Norsk Magazin for Lægevidenskaben.) Christiania. Carl C. Werner og Comp. 1857. 8vo, pp. 70.

Investigations relating to Inoculation of the matters of Vaccine and of Chancre, with a view to establish the conditions of immunity and their consequences. By Dr. F. C. Faye, Professor of Midwifery and Diseases of Women and Children in the University; Principal Physician to the Lying-in Institution and the Hospital for Children in Christiania. Reprint from the Norwegian Magazine of Medical Science.

The discussion in the Norwegian Medical Society, of which the first of the above-named works is a report, was continued through eight meetings of the Society, and created much interest among the members of the Profession in Norway. The subject of syphilization has, however, been so recently and so fully treated of in this Journal, that we do not feel called on to enter, on the present occasion, on an analysis of either of the volumes, whose titles we have just quoted, more especially as two of the leading speakers in the discussion, Professors Faye and Boeck, who to a certain extent hold opposite views on the subject, have had their opinions brought before our readers: Professor Faye in the report of the proceedings of the British Association, contained in the letters of our Dublin Correspondent (p. 256); and Professor Boeck in a communication he addressed to us on the "Results of the Treatment of Two Hundred Cases of Constitutional Syphilis by Syphilization." We cannot say that we have seen anything in these publications to induce us to change the unfavourable opinion we expressed of the proposed treatment in a leading article some weeks back, (p. 250,) which was by a curious coincidence published in the number of the Journal containing the report of Professor Faye's opinions on the subject, though at the time we penned it we had no reason to suppose we should receive the letter.

The Successful Treatment of Scarlet Fever: also Observations on the Pathology and Treatment of Crowing Inspiration in Infants. By P. Hood, Surgeon. London: 1857. 8vo. pp. 200.

Mr. Hood has given the profession a most excellent monograph on Scarlet Fever. This disease appears to have long been with him an especial object of study; a large practice having afforded him ample opportunity for investigating its history. It is a malady which stands high in the records of mortality as a destroyer of life; and there are few practitioners who do not feel a certain degree of anxiety creep over them, when called upon to combat it—certain forebodings as to what the issue may be in their hands.

Mr. Hood's book will allay much anxiety of this sort. The title of it is cheering as well as bold: "The Successful Treatment of Scarlet Fever." But there is no presumption in the word; for successful indeed may Mr. Hood's practice be termed: "during five-and-twenty years of active practice he has lost but two patients from scarlet fever." And further, to show the value of his method, he quotes the experience of Mr. Fuller, who pursues a similar plan of treatment, and "who has not lost a patient from this disease for thirty years." These facts alone will secure to Mr. Hood the attention of his Medical brethren. They are very startling.

The most valuable portion of Mr. Hood's book is that in which he gives minute practical details for the properly conducting of a case of scarlet fever to its conclusion. Here he exhibits the well-gathered fruits of a large experience. He pretends not to possess any wondrous succedaneum for the cure of the disease, but attributes his success simply to the "precision of the rules he lays down for the employment of emetics and purgatives, and the persistent use of quinine as the chief remedy." "I take no credit to myself beyond the discovery of the most suitable arrangement of remedies to combat scarlet fever. The success of the treatment depends upon the adaptation, in regular order, of all that is valuable out of the many agents hitherto employed for the cure of scarlet fever by others."

Bleeding Mr. Hood considers not requisite or advisable. His remedies are given in this manner:—1. Emetics; 2. Purgatives; 3. Quinine; 4. Opium; 5. Wine and Diet. Emetics in the onset Mr. Hood invariably prescribes to children, and speaks most highly of their use. The quinine he considers as an actual antidote to the blood-poison; but, like the other remedies, it may do harm if not rightly administered.

We must refer the reader to Mr. Hood's pages for particular details. He has there wisely set down "small things," which great Physicians might have despised; and the Practitioner will thank him for so doing. He well says, "Apparent trifles here assume a character of importance." It is just this minute attention to details of treatment, indeed, which takes a man fairly through the valley of the shadow of death, and brings him well out of it. Rightly to apply the right remedy at a right moment—this is the sum and substance of Mr. Hood's teaching, and we thank him for the lessons he has taught so well.

At the end of his treatise are some very valuable remarks on Crowing Inspiration.

Report of the Trial of Madeleine Smith. By A. F. Irvine, Advocate. Edinburgh: 1857. 8vo, pp. 307.

This is a full report of one of the most interesting medico-legal trials on record. The evidence of the medical witnesses has been corrected with great care, while the charges of the judge, and the speeches of the counsel have been revised by those gentlemen, so that every security is afforded for the accuracy of the report.

Medical Anatomy. By Francis Sibson, M.D., F.R.S. Fasciculus V. London: 1857.

The plates in the fasciculus before us fully sustain the high character acquired for these illustrations of Medical Anatomy. They will be found especially useful in leading to a more precise power of correct physical diagnosis of the diseases of the heart and great vessels.

An Expository Lexicon of the Terms, Ancient and Modern, in Medical and Surgical Science, &c. By R. G. Mayne, M.D. Part VI. London: 1857.

The sixth part of this valuable lexicon extends from the 761st to the 912th page, and from the letters NEU to PER. The care evinced in the preparation of the earlier parts is fully kept up as the work advances towards completion, and justifies the opinion we have before expressed, that it will prove a most useful addition to Medical literature.

PROGRESS OF MEDICAL SCIENCE.

Selections from Foreign Journals.

RESEARCHES ON THE HISTOLOGY OF THE NERVOUS SYSTEM.

By M. JACUBOWITSCH.

Professor Jacubowitsch, a young Russian *savant*, has been, during the last four years, laboriously employed in the microscopical study of the nervous centres. An account of these has been recently presented by M. Flourens with almost extravagant eulogiums to the *Académie des Sciences*, before which learned body the author also exhibited several beautiful drawings from some of his preparations, said to amount to 25,000 in number. As M. Jacubowitsch is about shortly to publish a full account of his researches, and is also, we believe, soon to visit London in order to exhibit his preparations, we shall at present content ourselves with the following *resumé* of his communication to the Académie, drawn up by himself and by M. de Castelnau.

1. The cerebro-spinal system is composed of three descriptions of cells, which, while assuming the essential form of the animal cell in general, are distinguished by the following special characteristics: — 2. Axis-cylinders arise from the periphery of these cells, which they distinguish from each other by their number. (*a*) In the first species, or *multipolar* cells, the number of axis-cylinders radiating from the periphery varies from 3 to 8, and is habitually 3 or 4. The form of this cell is irregular (*b*) in the second species, or *fusiform* cells, the axis-cylinders are 3 in number, sometimes 4, but never more. They assume the spindle form, and are much smaller than the multipolar cells. (*c*) In the third species, or *bipolar* cells, the axis-cylinders are but two in number. These cells are of an oval form, and in size are intermediate between the two other species. 3. (*b*) The *multipolar* cells are met with in the *medulla spinalis*, in the cerebellum, and in the *corpora quadrigemina*. It is remarkable that none are found in the *medulla oblongata*. In the *medulla spinalis* they are situated in the anterior cornua and in the grey substance. (*b*) The *fusiform* cells are found in the *medulla spinalis* and *oblongata*, in the cerebellum, in the *corpora quadrigemina*, and in all parts of the cerebral hemispheres, which are almost entirely formed of them. In the *medulla spinalis* these cells are placed in the posterior cornua. (*c*) The *bipolar* cells are found in the *medulla spinalis* and *oblongata*, in the cerebellum, and in the *corpora quadrigemina;* but the cerebrum does not contain any. In the *medulla spinalis* they are principally found around the central canal. They are very abundant in the *medulla oblongata*, constituting its greatest portion. 4 (*a.*) The axis-cylinders proceeding from the *multipolar* cells form the nerves of motion; and it is for this reason that the author terms these cells, cells of *motion*. (*b.*) The axis-cylinders of the *fusiform* cells form the nerves of sensation, and the cells are termed cells of *sensation*. (*c.*) The axis-cylinders of the *bipolar* cells are in relation with the grand sympathetic; and the cells are termed *ganglionary* cells. 5. The same and different species of cells communicate with each other as follows:— (*a.*) The cells of *motion* communicate from one side to the other by the anterior commissure, or rather this commissure is formed by the intercrossing in every direction of the axis-cylinders which proceed from these cells. Those of the same side also communicate by the axis-cylinders, which proceed directly from one to the other. (*b.*) The cells of *sensation* communicate from one side to the other by the posterior commissure, or rather they constitute that commissure; but they remain parallel to each other, and do not intercross. Those of the same side communicate directly. (*c.*) The axis-cylinders of the *ganglionary* cells pass by either the anterior or the posterior commissure; and thus communicate from one side to the other, like both the other species. Communications also take place between those of the same side. (*d.*) Communications, moreover, take place between the different varieties of cells; but the author has only met with them in the cerebellum and in the *corpora quadrigemina*, in which the three varieties of cells occur. 6. The different species of cells are not equally abundant in all the regions of the *medulla spinalis*. Thus in the cervical and lumbar regions the cells of motion predominate, while in the dorsal region those of sensation are most numerous. 7. The *medulla oblongata* is purely and simply a prolongation of the *medulla spinalis*, a prolongation entirely formed of cells of sensation, containing in their centre a nucleus of ganglionary cells. 8. The cerebellum is formed of four elements, viz. (*a*) of three elements, constituting the white substance, and which are prolongations by means of the peduncles of the pyramidal bodies which furnish the elements of the cells of motion, of the restiform bodies which furnish the elements of sensation, and of the ganglionary element which enters with each of the other two. (*b.*) Besides these three elements, the periphery, or cortical substance of the cerebellum, is formed of characteristic pyriform cells peculiar to this organ. From these pyriform cells prolongations are sent to the surface of the organ, forming a layer termed by the author the *couche en baguettes*. 9. The *corpora quadrigemina*, formed by the prolongations or the peduncles of the cerebellum, by the restiform bodies, and by the horse-shoe shaped commissure, contain the three varieties of cells which they derive from these various origins. But this is the last point where these three varieties are found together. Above this, in the hemispheres, as already stated, the cells of sensation, of which the *corpus callosum* forms the commissure, are alone met with. 10. With the exception of the optic, the olfactory, the auditory, the vagus, the glosso-pharyngian, and the hypoglossal nerves, which only consist of cells of sensation and ganglionary cells, all the nerves are formed of the three varieties of cells, with this difference among them, that the nerves of motion contain especially the cells of motion, and so on. 11. Besides the elements now described, the cerebro-spinal system contains a special connective tissue uniting the other elements, and which differs from the connective tissue of other organs by not containing any cells. It is, moreover, in infinitely small proportion as compared with the nervous tissue, and seems to play no other part than that of a bond of union. 12. These three categories of cells vary in different species of animals. They are smallest in size in man, and in general they are small in a proportionate degree to the intellectual development. The number of the nervous cells bears no proportion to the size of the brain.

From this brief *resumé*, M. de Castlenau observes, we are enabled to deduce some of the principal consequences of the fact upon which M. Jacubowitsch's researches are based.

1. The three entirely distinct functions of the nervous system, motility, sensibility, and organic action, are not only exercised by three different orders of nerves; but, moreover, these orders of nerves take their origin in different central anatomical elements.

2. The *medulla spinalis*, whence spring the general nerves, contains equally and naturally the three orders of elements: but the brain, the organ of the intellect, contains but the elements of sensibility, and the nerves of the special senses are also made up of the same element, with which is united in small proportion only the ganglionary element.

3. The element of sensibility is of different dimensions in man and animals, being smaller in the former and larger in the latter; so that for even an equal cerebral mass the human brain is much more rich in sensible elements than is that of animals. From this to the relative richness of each particular man, and especially of each human race, the distance does not seem insurmountable. Will it ever be passed? That is a question we must reserve, but still with a doubt accompanied by much hope.

4. M. Jacubowitsch's researches scarcely promise less to the pathologist than to the physiologist. They have already shown that in affections of the nervous system, in which the most minute ordinary examination could detect no material lesion, such lesion was nevertheless considerable, since one or more of these orders of elements had become greatly altered in their form, or even had undergone destruction. This single result sufficiently indicates the brilliant horizon that may be opening to the pathological anatomist. If it exhibits to us clearly but a small part of that which we now seem to have a glimpse of, M. Jacubowitsch will not have rendered less service to the practitioner than to the physiologist and the true philosopher.—*Moniteur des Hôpitaux* No. 108, *and Comptes Rendus*, tome xlv. No. 9.

EXCERPTA MINORA.

Chapped Nipples.—M. Van Holsbeek recommends the following formula as of great service:—oil of *eade* (empyreumatic oil of juniper) 3½, oil of almonds 3, glycerine 3. When the chaps are very large and deep the proportion of oil of *eade* must be increased. It is to be applied every time the child has sucked by means of a badger's-hair brush. The child exhibits no repugnance to it. For a short time the application causes a little heat; but in a few days the sores are healed.—*Presse Méd. Belge*, No. 28.

Empyreumatic Applications in Eczematous and Impetiginous Eruptions.—M. Gibert, of the St. Louis, places resinous, and empyreumatic substances at the head of the topical astringents. Purified tar, in the proportion of 3 parts to 30 of lard, is daily employed as an excellent resolvent in squamous eruptions, and as a valuable desiccative in chronic eczematous and impetiginous affections. Since the introduction of glycerine he uses it in preference to lard, thickening it by means of starch into the consistence of an ointment: 2 parts of tar to 30 of glycerine, to which a sufficiency of starch is added while heated, forms a valuable application in pruriginous affections, in *eczema rubrum*, impetigo, acne rosacea, &c. He also frequently employs the oil of *cade*, mixed with twice the quantity of almond or cod-liver oil. This possesses great resolvent and siccative powers, very obstinate, eczemas yielding to it. So do obstinate prurigenous, papulous

and eczematous eruptions about the anus and genitals. In these last cases he also orders cold sitting-baths, and administers arsenic internally.—*Gaz. des Hôp.* No. 93.

Colcoynth Enemata in Leucorrhœa of Children.—M. Richard, who, like other practitioners, has found this affection when occurring in young girls extremely obstinate, reports that he has of late treated it by colocynth enemata with excellent effect, a form of medication M. Claude has employed in serious strumuous affections. A coloeynth apple is macerated in two glasses of hot water during 24 hours; and after being well pressed, a third of the liquor is employed for a child 7 or 8 years old. This after an ordinary *lavement* having been given, is administered, and is retained from ¼ to 1 hour. The same day the child has from 7 to 30 stools, the last being sanguinolent, and the next day from 4 to 10, gum-water being given abundantly as drink. A light broth may be allowed on the second and third day; the health is excellent and the appetite very keen. On the fifth or sixth day the dose may be repeated. In the cases in which M. Richard has tried it, in some the lavement has been repeated three and in other four times.—*Gaz. des Hôp.* No. 97.

GENERAL CORRESPONDENCE.

ELECTIONS AT THE ROYAL ORTHOPÆDIC HOSPITAL.

To the Editor of the Medical Times and Gazette.

Sir,—It may be interesting to your readers to know how the elections at the Orthopædic Hospital are conducted; and for this purpose I will place before them the following short statement:—

The death of Mr. Lonsdale caused a vacancy in the staff of the Hospital, which vacancy was to be declared October 8. Mr. Adams resolved to contest the election with me, notwithstanding that I had been elected to the Assistant-Surgeoney by a very large majority of votes above him (nearly in the proportion of 3 to 2), and notwithstanding my priority in the Hospital. However, when a contest appeared to be inevitable, we agreed mutually not to issue testimonials; we agreed also not to canvass for the appointment until after the vacancy had been declared.

Both of these propositions, in themselves highly commendable, came from Mr. Adams; yet he immediately afterwards, without giving me the slightest intimation of his intention, wrote for testimonials; at the same time expressing that he was my senior, and making it to appear that he was an injured man, because I intended to oppose his election. Furthermore, Mr. Adams issued the following letter, eight days before the declaration of a vacancy, notwithstanding that the rules of the Hospital provide that "Any person who shall canvass or solicit the votes of the governors with a view to his election to any office until the vacancy shall have been publicly declared by the Committee, shall be ineligible for such election; and the election of any person who shall be proved to have so canvassed shall be null and void."

"5, Henrietta-street, Cavendish-square,
30th September, 1857.

"The lamented death of my late friend and colleague, Mr. Lonsdale, has caused a vacancy in the Medical Staff of the Royal Orthopædic Hospital of which you are one of the governors.

"The laws of the Hospital strictly prohibit any canvassing until the vacancy has been publicly declared by the committee, which cannot take place until after the general court on the 8th of October.

"At the present time, therefore, I can but earnestly request you, in accordance with the laws of the Hospital, to withhold your promise of support until after a declaration of the vacancy. "Yours obediently,

"Wm. Adams,
"Assistant-Surgeon to the Royal Orthopædic Hospital."

It appears to me to be unnecessary to comment upon the above-mentioned mode of conducting an election. If it were not perfect in itself, it becomes so with the addition of the following letter:—

"33, Old Burlington-street, Oct. 5, 1857.

"My Dear Madam,—Candidates for the approaching election of Surgeon must not canvas until after the court on Thursday next.

"Your vote, I know, will be given for the good of the Hospital solely, I therefore have no hesitation in asking you to place it at my disposal.

"I am, my dear Madam,
"Yours faithfully,
"R. W. Tamplin."

I will leave all comments for yourself and your readers, and am your obedient Servant,

Bernard Brodhurst.

14, Brook-street, October 13, 1857.

TARAXACUM *NOT* A SOURCE OF FALLACY IN TESTING FOR MORPHINE.

[To the Editor of the Medical Times and Gazette.]

Sir,—My report of the late inquest at Dagenham, and of the chemical points raised by Dr. Letheby's evidence given upon that occasion, having passed unnoticed by him, I forwarded to Dr. A. S. Taylor a portion of the taraxacum employed by Mr. Macarthy in dispensing the medicine for the deceased.

The following is Dr. Taylor's account of the result of his analysis:—

"Sept. 24, 1857.

"Dear Sir,—In conjunction with Mr. Scanlan, a gentleman well versed in pharmaceutical chemistry, I have made a qualitative analysis of the sample of extract of taraxacum which you forwarded to me. We employed about twenty grains: there was not the slightest trace of meconic acid, in the absence of which opium cannot be said to be present; and there was no evidence of the presence of morphia, nor of any substance which, under reasonable precautions, could be mistaken for it.

"It contains the dandelion bitter, or taraxacin, resin, sugar, and tannic acid.

"The aqueous infusion or decoction acquires a bright reddish colour on the addition of nitric acid; and in this respect only it bears a remote resemblance to an infusion of opium. The numerous fallacies to which this mode of testing is exposed,—generally well known to and recognised by chemists,—as well as the entire absence of the smallest trace of meconic acid, preclude the possibility of mistake when a careful analysis is made. For this reason, we do not agree in the statement that taraxacum, or any substance contained in it, presents a source of fallacy in testing for opium or morphia.

"I need hardly say that if twenty grains of this extract present nothing which can be mistaken for the constituents of opium, it is not at all probable that a smaller quantity would present any fallacy; and in answer to your question, I have to say that I do not believe this quantity of the extract, or any portion of it, would be likely to remain in the stomach for a period of twenty hours. "I am, &c.

"N. Davey, Esq. Alfred S. Taylor."

(Dr. Taylor has since informed me that he has examined another sample of extract of taraxacum obtained from a respectable druggist in his neighbourhood: the results were similar.)

This letter is quite conclusive as to the principal point at issue, and establishes that taraxacum is not a source of fallacy in a carefully conducted analysis.

It is difficult to imagine a more unsatisfactory case than this. I am, &c. Norris F. Davey.

THE READY METHOD OF THE LATE DR. MARSHALL HALL.

[To the Editor of the Medical Times and Gazette.]

Sir,—Should you consider the following case worthy a place in your columns, I shall feel obliged by its insertion.

On Friday last, I was called to attend Mrs. Y——, then in labour in Old Compton-street. On arriving I found her on her hands and knees upon the bed, the legs and part of the body of the child hanging suspended through the vagina, for (according to the nurse's calculation) about five minutes before

I got there pulsation in the cord had ceased, and the parts already in the world were cold and flaccid. I immediately brought down the arms, and in about three minutes the head followed, the child to all appearances quite dead. I at once commenced the Ready Method recommended by the late Dr. Marshall Hall, and in twelve minutes heard a kind of whining or moaning noise, which encouraged me to continue and in about three minutes more followed an inspiration; at the end of twenty-four minutes the child made a faint cry, when two or three slaps on the nates made it cry out lustily, and respiration was established. The child is now living and doing well. This being the first successful case out of three within the last two months, I thought it would not be out of place to make the same known in your widely circulated Journal.

I am, &c.

James Hadaway, M.R.C.S. L.S.A.

48, Berwick-street, October, 1857.

SOME ACCOUNT OF THE RECENT MEETING OF NATURALISTS AND PHYSICIANS AT BONN.

[To the Editor of the Medical Times and Gazette.]

In the following account of the proceedings of the various sections specified in my previous communication,(a) I shall limit myself to a brief notice of the salient points of subjects that more immediately concern the medical profession. To begin with the Anatomical and Physiological Section. Dr. Harley, of University College, read a paper on some experiments he had performed, in conjunction with M. Philipeaux, with a view of determining the effects produced by disorganization of the supra-renal capsules in the lower animals; the general result was that the animals recovered—and that without any subsequent discoloration of the skin. Professor Czermak attempted to prove, by means of a "palate-sound" that was passed through the nose, till it touched the soft palate, that in the articulation of the vowels a, e, o, u, i, the soft palate underwent a progressive elevation. Professor Bruch found that the larynx was similarly elevated in the sequence of the vowels o, a, u, e, i. Professor Schaafhausen made some remarks on a fossilised human skull found at Elberfeld, and a fragment of a skull found at Pau, in Mecklenburgh. He considered that they belonged to an aboriginal people of the north of Europe. Professor Schröder van der Kolk made some interesting observations on the structure of the medulla oblongata; the reason, he observed, that the thorax, abdomen, and diaphragm were exempt from hemiplegia was because their nerves terminated in the medulla oblongata, in which their nervous centres were connected by transverse fibres. Professor L. Fick narrated some experiments he had performed upon the effect produced on bones by stripping them of their muscles; he found that as a rule an hypertrophy of the bone ensued. Dr. Heinsius, of Amsterdam, explained the absence of albumen in healthy urine by the results of some diffusion-experiments that he had instituted; in these he found that a solution of albumen exhibited but little tendency to diffuse into urine or faintly acidulated water. Professor Donders communicated some experiments of one of his pupils, which went to show that section of the sensory nerves had little influence on the process of inflammation, but that this was considerably accelerated by section of the sympathetic.

The first paper read in the Surgical Section was one by myself on Epithelioma, in which I attempted to separate this disease from the truly cancerous affections. Dr. Ruete, of Leipzig, then exhibited an instrument which he designated as an "Ophthalmotrope." It consisted of enlarged models of the human eyes, moveable on universal joints; to each eyeball was attached a series of six rigid cords, which represented the muscles of the eyeball; these cords passed over graduated indices, and were finally attached to some elastic springs. Simple references to the indices showed what muscles were stretched, what were contracted, and to what extent in any given position of the eyeball. The author insisted on the absolute precision of these indications, and of their use in determining what muscles were involved in any given case of strabismus. This might have gone down in the days of the iatro-mathematical school of medicine; but I hardly suppose the profession in this country would feel inclined to attach much more than a diagrammatic value to such a representation of nature's powers. M. Leroy d'Etiolles exhibited some instruments for the extraction of foreign bodies from the bladder. Professor Sedillot, deprecating the usual plan of closing the wound in the operation for empyema, thought that we should seek to convert the secreting surface of the pleura into one of cicatricial character. He was in the habit, with that intention, of leaving an open canula in the thorax; this plan had proved successful in his hands in five cases. Professor Otto Weber read a paper on the pathological changes the cartilages of inflamed joints undergo, in which he drew special attention to the formation of new vessels in their substance. Professor Vanzetti, of Padua, related two interesting cases of popliteal aneurism, which he had succeeded in curing by simple manual compression of the femoral artery; in the one case pulsation ceased in twelve hours; in the other in a still shorter time. Professor Strempel remarked that Koch had as far back as 1823 in Munich employed manual compression in place of the ligature after amputations. However, both Wutzer and Stromeyer threw some doubts on the value of this fact. Professor Busch communicated some observations on the progressive reinstatement of the nervous functions in paralysis; in some he had observed, first, the motor power to reappear, then that of the cutaneous nerves, and finally the muscular sense.

In the Sections of Practical Medicine, Midwifery and Psychology, many interesting communications were read, of which I regret want of space compels me to give but a brief outline.

Dr. Weisse of St. Petersburgh spoke of the use of raw beef as a food for infants troubled with diarrhœa. I remember some time ago seeing the same article of food employed at the Children's Hospital in Ormond-street.

Professor Naumann spoke in terms of favour of the steel preparations in the treatment of phthisis. Dr. Pistol of Vienna read a paper on the advantages of pepsine in gastric derangements. Professor Albers brought forward a new remedy—the Fucus amylaceus, or Indian moss, which on boiling yields a jelly much more agreeable to the palate than the ordinary Iceland moss. Professor Kilian communicated, on behalf of Baron Seutin, a plan for arresting hæmorrhage from the womb, occurring during labour. It consisted simply in compressing the abdominal aorta; but the feeling of the Section was decidedly against this plan. Dr. Breslau related four cases in which he had successfully removed the cervix uteri by means of the écraseur.

I have now, I believe, alluded to the principal matters discussed in the Medical Sections of the meeting, and if I have omitted any of the numerous interesting papers brought forward, it has been solely from the feeling that I must not allow myself to occupy to too great an extent the columns of an important periodical, than from any want of appreciation of the labours of the gentlemen who favoured the meeting with their papers.

J. Zachariah Laurence, F.R.C.S.

30, Devonshire-street, Portland-place.

(a) Page 372.

OPENING OF THE MEDICAL SESSION.

INTRODUCTORY LECTURES.

MANCHESTER ROYAL SCHOOL OF MEDICINE.

The Introductory Address of the session 1857-8 was delivered by Mr. G. Greaves, who, after referring to the difficulty of his task, owing to the multiplicity of the subjects upon which he might dilate, said there was one question the discussion of which he never remembered having heard, namely, what is the true and proper relation of the Medical Practitioner to society at large, and does he at any time hold his true relative position or not? It was unquestionable that a considerable amount of dissatisfaction pervaded the Profession, and that an impression prevailed among Medical men that the feeling of the public mind towards them was one of hostility rather than of friendship. They were regarded as a troublesome set of fellows, who, knowing that their services

could not be dispensed with, were inclined to presume upon the fact, and to make unreasonable demands. Hence the public, whether represented by departments of the state, by boards or committees, by juries, or by the periodical press, rarely let an opportunity pass of having a slap at any medical man who might be charged with having failed in his duty. The heaviest sentence permitted by the law was pronounced upon the Medical man who proved to be a delinquent in any public capacity. The members of the Profession were liable, for inevitable failures in the treatment of their patients, to be dragged into a court of justice, and to be mulcted in heavy penalties, as if in not succeeding while doing their best they had been guilty of grievous moral wrong. He could only refer to a few grounds of the dissatisfaction which pervaded the body. The first was the position which, as witnesses, plaintiffs, or defendants, they held in courts of law. As plaintiffs seeking to recover their fees, in the higher courts, juries too often showed that their sympathies were with the defendants ; and in the inferior courts, having summary jurisdiction, such was the mode of doing business that it was nearly impossible to recover a debt. If a Medical man appeared as a defendant, the feeling against him was still more actively shown, and notwithstanding his attendance upon a patient with the utmost punctuality and assiduity, and his application of all the known resources of his art, if the patient became inevitably a partial cripple, the want of success was assumed as a proof of negligence, and the Surgeon was cast in heavy damages. The glaring injustice of such a proceduce was strikingly shown by the treatment of a pretender to the rank of a Surgeon, who through his gross ignorance and barbarous violence had caused the death of a patient. Judge and jury combined to screen him, and he was acquitted because he had acted to the best of his knowledge and ability. Then as to their position as witnesses, it did not appear that the legal mind of England had as yet discovered the difference, which had long been recognised in other countries, between an ordinary witness who testified merely to facts, and a man who enlightened the court by his opinion on questions purely scientific. In the French, while the former was designated a *témoin*, the latter was known as an *expert*—a term for which the sooner we had an equivalent the better. In France the strictly Medical questions arising out of a cause were submitted to a commission of men of known learning and honour, or to a scientific Society, who gave their opinion in the form of what was called *une consultation medico-légale*. If something like this were done in England, and men skilled in medico-legal investigations were appointed in every large town or city to examine all bodies found dead under suspicious circumstances, and generally to aid the officers of the law, the truth would more frequently be arrived at. The subject of Medical reform, by which was understood an amendment of the laws which regulated the rights and privileges of the Profession, had been for some time before the public. The existence of their grievances had been admitted repeatedly by Parliament, and if the universities and corporations, some twenty in number, who in these islands could give licences to practise, could have agreed as to what they would ask from Parliament, their demands would have been granted. The requests of the great body of Practitioners were few and modest. They asked, first, that security should be given for the acquirement of a liberal education, by all who were about to commence the study of medicine. Secondly, that previous to receiving a licence to practise, evidence should be given of a competent practical acquaintance with every branch of medicine. Thirdly, to those who might fancy that to the rank of licentiate in medicine and surgery, increased dignity would be given by honorary titles conferred by a university or corporation, facilities might be given for acquiring such a distinction after the lapse of a certain number of years. Fourthly, they should be protected against interlopers. The ground which they had won for themselves should not be poached upon by men who had undergone no toils, incurred no risks, and given no evidence of the possession of learning or of gentlemanly feeling. They, therefore, asked that it should be a misdemeanour, punishable by a heavy fine, to assume any designation or title borne by a legally qualified practitioner. Fifthly, they asked that a register of all persons legally qualified to practise in any part of the Queen's dominions should annually be published for the information of the public and the guidance of those who had to administer the law against pretenders. Lastly, for the government of the profession and the regulation of its internal affairs, and its relations to society at large, a Medical Council should be appointed. In this council all the bodies now authorized to give licences to practice should be represented, and through them the whole body of practitioners. In return for the protection to be given by the government, most Medical men were willing to concede to the crown the nomination of a portion of the council, and they thought that by its president, or in some other way, it should be represented in Parliament. The functions of the Medical Council should be to fix the minimum of preliminary education, to be tested by a matriculation examination ; to overlook and regulate the instruction given in all schools of medicine ; and to appoint examining boards authorized to grant a general licence to practise in any branch of the Medical art. A bill, embracing such provisions, they fervently hoped to see carried in the ensuing session. Mr. Greaves then alluded to the treatment of medical practitioners holding appointments under certain departments of the state. Assistant-surgeons in the army and navy were, until recently, scarcely treated as gentlemen ; but, of late, an alteration for the better had taken place. The poor-law medical officers were, however, still in a deplorable predicament ; their cry had often sounded in vain in the ears of the legislature, but at length, thanks to the exertions of Mr. Griffin, of Weymouth,—there seemed to be a faint hope of an amended state of things. It might be said that medical men were themselves to blame for much of what they complained. It was unfortunately too true that there was among them a lamentable lack of *esprit de corps*. Had they been more courageous and united, they might long since have made their own terms with the public departments, the parliament and the public. In conclusion the lecturer said he had alluded to the deficiencies and grievances of the profession in his lecture to the students, because the only hope for the renovation of the constitution of the medical body was from the infusion of fresh blood. He counselled them to study medicine as one of the noblest of the sciences, and not as a means of exercising a lucrative craft ; he exhorted them to aim at the acquirement of all that was known, and at the further extension of the limits of science, and to labour to become impressed with the responsibilities of their high calling as ministers of Heaven for the relief of suffering humanity.—The lecture was concluded with loud applause.

NEWCASTLE-UPON-TYNE COLLEGE OF MEDICINE.

The Winter Session of this College was opened on the 1st instant, in the Lecture Hall of Neville Hall, Westgate-street, Newcastle. This College is in connexion with the University of Durham, with which and the Ryehill College of Medicine and Practical Science a union has lately been effected, thus uniting two rival Medical Colleges in this town, and closing the controversy which has for some time existed among the Medical Profession. The Ven. Charles Thorp, D.D., F.R.S., Warden of the University of Durham, presided. After the Report had been read and adopted, the Rev. T. C. Whitley distributed the prizes, and Mr. C. J. Gibb delivered the introductory address. A vote of thanks for this address, moved by the Rev. T. Chevallier, and seconded by Dr. Greenhow, was carried amid loud applause.

SYDENHAM COLLEGE.

On Thursday the 1st of October, the inauguration of the seventh academical year of this Institution took place in the theatre of the College. The Introductory Address was delivered by Mr. John Bassett, Lecturer on Materia Medica. It comprised advice to students upon the method of pursuing their studies, dwelling upon the importance of a good preliminary education in disciplining the mind, and preparing it to receive scientific truths, insisting upon the necessity of zealous industry as the only means of success. The prosperity and condition of the College were made the foundation of suitable remarks, and the two systems of education—that in the families of medical men, and that in Collegiate Institutions, were compared, and the

superiority of the former insisted on. The lecture was listened to with great attention, and at its termination a request was made that it should be published. At the conclusion of the lecture the prizes were distributed to the meritorious students of the past year, and the election of members of the Council proceeded with. Dr. Hill, the Secretary, then read the Report, from which the following are extracts :—In thus commencing their seventh academical year, the Committee assure the Council that the College is satisfactorily fulfilling the purpose contemplated in its formation—that of affording to students of medicine a sound and useful education under the supervision and direction of those who, being occupied in the active discharge of professional duty, are best qualified to afford advice on this important subject. Amongst the gentlemen, formerly students, several are engaged in the military medical service; and others are now filling appointments connected with an important Institution in this town. Since the Council last met three of their number, Mr. T. Thursfield, Mr. F. Ryland, and Mr. Simons have been removed by death. All of these gentlemen were contributors to the Museum, but Mr. Ryland and Mr. Simons being resident in Birmingham, had special opportunities of evincing their interest in the College. Two changes have taken place in the staff of lecturers. Dr. Wrightson has undertaken the duties of the chair of Theoretical Chemistry, and Mr. Johnson, formerly Resident Surgeon of the General Hospital, has been associated with the Lectures on Anatomy. A considerable and valuable addition has been made to the number of illustrative diagrams, particularly in the Pathological and Physiological departments, and the stock of Chemical Apparatus has been augmented. The collection of Morbid Anatomy has been continually increasing in extent and value, and has already become an important field for the study of Pathology. The Committee again record with much satisfaction, that for this result they are in great measure indebted to the zeal and interest manifested by the students in this essential department of the College. Whilst offering to the Council cordial thanks for their continued aid and support, the Committee feel that the success which has attended their efforts during the past years, warrants them in looking forward with confident anticipation to the future; and they trust that with the assistance of the Council their sphere of usefulness will extend with each added year. In conclusion they have the agreeable duty of announcing the names of the students who have distinguished themselves in the class examinations. Anatomy prize, Allen; Physiology prize, Lloyd ; Certificate of Honour, Garner. Medicine prize, Cowell; Surgery prize, Garner; Chemistry prize, Ryland; Midwifery prize, Iliffe; Certificate of Honour, Simmonds. Pathology prize, Allen. Dr. Fletcher's prizes for Medical Reports of Cases in the General Hospital, Jones and Cowell; Council prize, Jones." At the termination of the proceedings the Committee and Council with their friends dined together.

THE QUEEN COLLEGE, BIRMINGHAM.

The Winter Session opened on the 2nd inst, when the Theatre was crowded in every part. The report was read by Mr. Sands Cox, Dean of the Faculty :—The progress of the Medical Department continues to be highly satisfactory, and its prospects very encouraging; the number of students in attendance on the several classes is larger than at any former period. The following Return has been made to the Council.

Descriptive Anatomy.—Students, 58; present at the College examinations, 31 students.—Medallist, Bracey, Birmingham; certificate, Dunn, Wolverhampton.

General Anatomy and Physiology.—Students, 54; present at the College examinations, 31 students.—Senior class medallist, Mould, Sudbury; certificate, Bracey, Birmingham.—Junior class medallist, Lloyd, Birmingham; certificate, Herbert, Birmingham.

Practical Anatomy.—Students, 58; present at the College examinations, 30.—Senior class, books, Dunn; certificate, Bracey.—Junior class, Lloyd, books; Herbert, certificate.

Chemistry.—Students, 19; present at the College examinations, 12.—Medallist, Mould; certificate, Bracey.

Practical Chemistry.—Students, 19; present at the College examinations, 12.—Medallist, Mould; certificate, Bracey.

Principles and Practice of Medicine.—Students, 35; present at the College examinations, 19.—Medallist, Wilders; certificate, Mould.

Principles and Practice of Surgery.—Students, 38; present at the College examinations, 17.—Medallist, Mould; certificate, Jordan.

Materia Medica and Therapeutics.—Students, 23; present at the College examinations, 10.—Medallist, Herbert; certificate, Lloyd.

Principles and Practice of Midwifery.—Students, 42; present at the College examinations, 27.—Medallist, Mould; certificate, Lloyd.

Forensic Medicine.—Students, 17; present at the College examinations, 13.—Medallist, Wilders; Mould, *accessit*, cert.

Botany and Vegetable Physiology.—Students, 23; present at the College examinations, 8.—Medallist, Combill; certificate, White.

The Heslop Stetheoscopic Prize.—Wilders, Birmingham.

The Warneford Scholarship, ten pounds each, to be held for two years, to be conferred upon students who have resided in the College at least twelve months, who have been distinguished for their diligence and good conduct, and who have been regular in their attendance on Divine service in the College Chapel, have been conferred on Harris, Reading, Berks; and on Abney, Wellingborough.—*The Warneford Gold Medal*, value £20, for an essay on an anatomical, physiological, or pathological subject, to be handled in a practical or professional manner, and according to those evidences of facts and phenomena which anatomy, physiology, and pathology, so abundantly supply, but always and especially with a view to exemplify or set forth by instance or example "the wisdom, power, and goodness of God, as revealed and declared in Holy Writ," has been awarded to Mould. The subject selected, the "Anatomy and Physiology of the Kidney."

The Clay Prize.—The prize of five guineas (books), generously offered annually by your former student, Mr. John Clay, for a prize essay, has been awarded to Lloyd, Birmingham. Subject of the essay, "The Anatomy and Physiology of the Placenta."

Clinical Medicine at the Queen's Hospital. — 27 students appear the strength of this class. The examinations passed by Mould, medallist, and Wilders, did high honour to each of them. The difficulty of making an award was so considerable that it became necessary to submit the candidates to a second examination.

The Principal's Prize.—The Principal's prize, ten guineas annually (books), to be adjudged to the best clinical, medical, and surgical student, alternately, in the College, by the majority of the Hospital Physicians and Surgeons, has been carried off *æquales* by Mould, Sudbury, and Wilders, Birmingham.

Election of Physician.—When it is remembered that this Institution as a Charity is relieving upwards of one thousand two hundred in-patients, and upwards of eight thousand out-patients annually, and as a school of instruction is now affording practical information to a large body of students, the Council feel that the power of appointing the Medical officers entrusted by the charter to them is a duty of the highest responsibility. The retirement and death of Dr. Fife having created a vacancy in the office of Physician and Professor of Materia Medica, the testimonials of the respective candidates were referred in the first instance to the Professors, and on their report Dr. Fleming was unanimously elected.

Mr. Sands Cox having concluded the Report, the Rev. Chancellor Law appended the following :—"During the past year a highly gratifying tribute has been paid by the Principal, the Warden, the Council, and the Professors of this College, and by the public generally in Birmingham and its neighbourhood, to the long and arduous and invaluable services of Mr. Sands Cox, the Dean of the Faculty, rendered to the best interests of the Queen's College. This has been done by setting on foot a subscription as a testimonial of the esteem and regard in which Mr. Sands Cox is held." The prizes were then distributed by the Principal, the Warden, the Mayor, Sir Charles Hastings, Mr. Clay, and other gentlemen, amid loud applause.—An eloquent address was then delivered by the learned Principal on middle-class education (in which the question of an application to the Crown for extended powers, and affiliation with our ancient Universities, Oxford and Cambridge, was at some length entered into), to the largest meeting which has ever been held within its walls. After a vote of thanks to Dr. Booth, proposed by the Warden, had been carried by acclamation, the meeting separated.

OBITUARY.

MR. KEATE.

Mr. Robert Keate was born on the 14th March, 1777, at Laverton, Somersetshire. He was the fourth son of the Rev. William Keate, D.D., rector of that parish, and a prebendary of Wells. An elder son was the late Dr. Keate, Head-master of Eton College, and canon of Windsor. Robert received his early education at the Grammar School of Bath, where he remained till 1792, in which year he was removed to London, and apprenticed to his uncle, Mr. Thomas Keate, at this time Surgeon-General to the Army, and one of the Surgeons of St. George's Hospital.

In April, 1793, he was admitted a pupil of St. George's Hospital. In the wards of this Hospital, under the tuition of J. Gunning, John Hunter, William Walker, and his uncle, Thomas Keate; and at Chelsea Hospital (where he was appointed "Hospital Mate" in 1794) Mr. Keate laid the foundation of that practical acquaintance with disease, and acquired that dexterity of hand for which, in after life, he was so much distinguished.

In May, 1798, he was admitted a member of the Royal College of Surgeons of England, and appointed Staff-Surgeon in the army. In August of the same year he was intrusted with the care of H.R.H. the Princess Amelia, then an invalid at Worthing.

In the following year he was appointed Second Surgeon to Queen Charlotte; and so great was the confidence felt by the royal family in Mr. Keate at this early period of his career, that in the autumn of this year (1799) George IV., then Prince of Wales, who was visiting their Majesties at Weymouth, took his infant daughter, the Princess Charlotte, from Lady Elgin, and placed her in the arms of Mr. Keate, charging him in the most gracious and complimentary terms to study her constitution, and watch over her health.

From this period Mr. Keate was in frequent attendance upon all the members of the royal family, with the exception of the Duke of Sussex. He was personal Surgeon to King William IV. and Queen Adelaide; and in 1841, upon the death of Sir Astley Cooper, he was appointed Serjeant-Surgeon to her present Majesty. The last professional visit he ever paid was to H.R.H. the late Duchess of Gloucester.

In 1800 Mr. Keate was elected Assistant-Surgeon, and in 1813 Surgeon, at St. George's Hospital, which appointment he held till 1853, when ill-health compelled him to resign. Sir Benjamin Brodie, in an address to the pupils of St. George's at the distribution of prizes in this year, after alluding to some of the illustrious dead who had adorned this Hospital, thus speaks of his former colleague:—"One individual, however, who was Assistant-Surgeon when I was yet a pupil, and who was my colleague afterwards, still remains among us. During the term of thirty-two years Mr. Keate and myself laboured together; and I may, I believe, affirm, that not only no unkind word, but that scarcely even an unkind thought, ever passed between us. It is not for me to determine how far we were successful; but I may say that we were alike anxious, and neither of us more than the other, to render the Hospital more efficient, both as a receptacle for the sick and as a Medical School. You must excuse me if I take this opportunity of expressing how much I am myself indebted to the example Mr. Keate has afforded me of an accomplished Surgeon, and a man of integrity and a gentleman. Nor are these observations irrelevant on the present occasion, as I am thus enabled to point out to the younger members of our Profession by what rules they should shape their course if they would enjoy the respect and esteem of others as they advance in life."

During the war with France, Mr. Keate was much employed in various official situations connected with the Medical department of the Army, and in 1807 he attained the rank of Inspector-General of Hospitals. He was an active member of the Royal College of Surgeons for many years, as a member of the Council and Board of Examiners, and thrice filled the office of President.

In the long period of his professional life Mr. Keate, by his courteous manners and uprightness of conduct, obtained the respect and regard of all who came in contact with him in public and in private; and it is very gratifying to his family to have been favoured by a most competent judge with the following testimony to his surgical skill and integrity of character:—

"There were few forms of disease with which Mr. Keate was not familiar, and he was ready and skilful in the application of remedies. As an operator he has never been surpassed. Neat and accurate in the use of his hands, he was at the same time prepared for whatever might happen, and never lost his presence of mind and self-command. There was also this great excellence in him, that it was plain to every one that he thought of nothing but doing the best that could be done for the patient. There was no attempt at display, nor the smallest appearance of his troubling himself as to what others thought. But Mr. Keate had other qualities which made him an useful example to his profession. He was thoroughly honest, and a thorough gentleman. No one ever knew him to have been guilty of an unkind or illiberal act either towards his patients or any one else. He was entirely free from vanity and self-conceit—assumed nothing that did not belong to him. If he had any fault in this respect, it was that he rather under-estimated his own merits."

Mr. Keate was married to Isabella Ann, the youngest daughter of H. Ramas, Esq., H.E.I.C.S., and has left two sons and four daughters. The eldest son, Mr. R. W. Keate, is Governor of Trinidad.

In addition to the above narrative, we are enabled to lay before our readers certain particulars concerning the late Mr. Keate and his uncle Mr. Thomas Keate, which may not be uninteresting.

Mr. Thomas Keate is chiefly known now as having been the first to tie the subclavian artery, though few men were more fortunate than he in his career. Besides the lucrative appointments of Surgeon-General to Her Majesty's Forces, and Surgeon to Chelsea Hospital, Mr. Thomas Keate was Surgeon to the Queen, to the Prince of Wales, to the Duke of York and to St. George's Hospital. It so happened that the late Mr. Guthrie was present at the operation above referred to, of which he has given the following description.

"The first instance on record of the subclavian artery being included in a ligature, is that in which the late Mr. Keate, Surgeon-General to the Forces, applied it below the clavicle in the York Hospital, Chelsea, in a case of axillary aneurism formed after a gunshot wound of some months' standing, which had burst. Mr. Keate, after dividing the pectoral muscle in the course of its fibres, dipped down twice with a needle and thread, and the second time secured the artery. I was present at the operation, and assisted the late Mr. Carpue in taking care of the man afterwards, who recovered. I was too young to know anything about the matter, and too much in awe of the Surgeon-General to suppose for a moment that anything he did was wrong. I have, however, often since thought of the two dips of the needle, and have even ventured to think that the patient was as fortunate in his escape from his doctor as from his disease." (a)

From the description, we imagine that the dexterity of the uncle as an operator was inferior to that of the nephew, who certainly was not the man to peril the life of a patient by want of skill.

Great as were the merits of Mr. Robert Keate, he had the peculiar advantage of being early enabled to display those merits to the greatest advantage; he rose from the rank of Hospital Mate to that of Inspector General of Hospitals in the short space of thirteen years, a stride probably unparalleled. Amongst the delicate duties which devolved upon him from his connexion with the army board, was an inquiry in 1805 into the conduct of Dr. Boone, who appears to have been charged with peculation in connexion with the Military Hospital at Plymouth. His report is printed in Mr. Thomas Keate's "Observations on the Fifth Report of the Commissioners of Military Inquiry," and ends with this melancholy picture: "We cannot conclude without bearing testimony to the reiterated accounts of the lamentable sickness and mortality that prevailed at Plymouth on the commencement of these hospital establishments, and which we respectfully submit may plead as an apology for many irregularities, though not for the improper charges that have herewith been noticed."

Mr. Robert Keate went on half-pay in 1810, and continued so till his death. He became a Fellow of the Royal Medical and Chirurgical Society in 1815, was a member of the council

(a) On Wounds and Injuries of the Arteries of the Human Body, p. 40.

in 1818, and vice-president in 1826. The office of president he never filled. He communicated to the Society an interesting "History of a case of bony tumour successfully removed from the head of a female," which is published in the tenth volume of the Transactions; the thirty-second volume also contains a drawing of a remarkable case of exfoliation of the atlas, from a preparation in the Museum of St. George's Hospital, the case being narrated by Mr. Keate in the sixteenth volume of the Medical Gazette.

It has been mentioned that Mr. Keate was thrice president of the College of Surgeons; he would have been so a fourth time (1854), but owing to his infirmities waived his claim in favour of Mr. Guthrie, who was destined to precede him to the grave. Mr. Keate resigned his examinership in July 1855, and his seat in the council so recently as May last.

Whatever opportunities Mr. Keate might have enjoyed for acquiring money, he did not avail himself of them; the smile of royalty failed to enrich him; and though he lived respected, he died, we are informed, more full of honours than of wealth.

MEDICAL NEWS.

Royal College of Surgeons.—The following gentlemen, having undergone the necessary examinations for the diploma, were admitted members of the College at the meeting of the Court of Examiners on October 9, 1857:—

Applin, A. O., Aimy.
Braden, J. G., Commercial-road East.
Ellis, J., St. Thomas's Hospital.
French, E. B., Hereford.
Grabham, G. W., St. Thomas's Hospital.
Lowe, J., Lynn Regis.
Mansel, T., Pembroke.
Molineaux, J., Manchester.

Apothecaries' Hall.—Names of gentlemen who passed their examination in the Science and Practice of Medicine and received Certificates to Practise, on September 1 and 8:—

Foster, William Frederic, Hambledon, Hants.
Wood, William, Middleton, near Bereley, Yorks.
Wood, William, Wakefield, Yorks.

DEATHS.

Bush.—At Kamptee, on the 15th August, of remittent fever, after six days' illness, brought on by over-fatigue, John Stafford Bush, aged 30, Assistant-Surgeon H.E.I.C., Madras Service.

Johnston.—On 25th September, at the Terrace, Stirling, Alex. Johnston, Surgeon.

Manson.—At Spynie, on the 28th ult., of disease of the heart, David D. Manson, M.D., in his 46th year.

Presentation to Mr. West, House-Surgeon of the Queen's Hospital.—On the 8th inst a number of the junior resident Medical officers, clinical clerks, and students connected with Queen's Hospital, assembled for the purpose of presenting Mr. West with a handsome ornamental time-piece and a silver ink-stand. After an excellent supper, Mr. Mould, after a few appropriate observations, read the following address from the Junior Resident Officers, Clinical Clerks, Dressers, and Students of the Queen's College Hospital. "Sir,—We cannot allow you to resign the post of House-Surgeon to the Queen's Hospital without testifying our appreciation of the manner in which you have discharged the duties of that office during the three years you have been with us. We have ever found you zealous in the discharge of the responsible duties that necessarily devolve on you in a large clinical Hospital, and we feel sure that it will be a source of the highest gratification to you to know that the duties you have performed so sedulously and efficiently have met with the warm approbation of the students. We beg you will accept the accompanying testimonial as an assurance of our esteem, and we trust the professional talents so ably employed for the benefit of the Hospital and ourselves will contribute to place you in a more extended sphere of usefulness." Mr. Dyer, in proposing the health of Mr. West, adverted to the extreme kindness and anxiety to further the interests of the students which he had ever displayed, and called upon the gentlemen present to drink his health in a bumper, and give him musical honours. Mr. West returned his cordial thanks, and begged they would believe he would ever be ready to assist in promoting the interests of their College.

The Medical Society of King's College, London.—The Inaugural Meeting of this Society was held on Thursday, the 8th instant, in the library of the College, when Henry Smith, Esq., F.R.C.S., one of the Vice-Presidents, gave an interesting and eloquent address. He reviewed at some length the objects of Students' Societies, and adverted to the good that their members acquired, and they themselves conferred.

London Water.—According to the analysis which has been made by Dr. R. D. Thomas, the composition of the Southwark Company's water, taken from the stand pipe at the cab stand opposite St. Thomas's hospital, was in August 16·28 grs. of total impurity per gallon, of which 1·08 grs. were organic matter. On the 7th of September the total amount of impurity was 75·56 grs. per gallon, and of this 5·66 grs. were organic matter. This water in September, 1857, was as impure as the dirty water which was supplied to the inhabitants of London in former years, when the water was taken from the Thames at Vauxhall.

Results of Sanitary Measures at Tynemouth.—The town council of Tynemonth, as the local board of health, are adopting prudent measures for the conservancy of the public health. As in 1853, on the presence of the cholera in the north of Europe, and remembering the immense trade between the Tyne and that part of the world, they are endeavouring to put the town into a thoroughly sanitary condition. Labourers are cleansing out all the back lanes and alleys in the borough, and an ample supply of quick-lime is kept in depôts in various parts of the town, which is furnished to the labouring classes free of cost for whitewashing. The common lodging-houses are also put under the surveillance of the police, and overcrowding is carefully prevented. Sailors' lodgings are also now licensed. Since 1853 this borough has been thoroughly drained by a system of main sewerage, laid down at a considerable outlay under the inspection of a surveyor belonging to the General Board of Health. All the parish graveyards have been closed, and a new general cemetery belonging to the borough has been opened in the suburbs. Since the sewerage has been completed typhus and other fevers are reported to be less common and fatal. While Tynemouth escaped the cholera in 1853—for the six deaths reported were cases brought from Newcastle to the seaside—the village of Howdon Pans was nearly decimated by it. The older portion of Howdon is exceedingly unhealthy, and the River Tyne Commissioners, who hold the principal portion of the property, are about to level it, and raise it, and build streets of new and commodious houses. The village will also be well drained. Howdon has had three visitations of cholera. On each occasion the disease, before it became epidemic, entered one particular tenement in an old house, and struck down its first victim. A brief enumeration of a few facts will show what was the result of a little timely precaution and the exercise of magisterial power in South Shields in 1853. In 1849 cholera broke out in a most malignant form in the common lodging-houses of one particular locality in South Shields—Union-alley. The inmates nearly all perished on that occasion, and the police were obliged to burn the furniture and shut the houses up to prevent the epidemic extending. A short time previous to the appearance of cholera in 1853 in Newcastle-on-Tyne those lodging-houses were brought under the Common Lodging-House Act. They were licensed, the number of inmates limited, and they were inspected nightly by the police. The result was most striking. Other dwellings were visited by the cholera in 1853 in this locality and other poor districts of South Shields, and several of their inmates perished; but during the whole of the fearful autumn of 1853, and though scores of poverty-stricken people came direct from the worst-infected districts of Newcastle to lodge, not a single death occurred in any of the common lodging-houses of South Shields from cholera.

Westminster Hospital.—Prizemen for Session 1856-57.—Clinical Medicine—Prize; Mr. M. J. S. Perreau. Dr. Jackson's Prize: Mr. M. J. S. Perreau. Clinical Surgery—Prize: Mr. James Ford. Chemistry—Medals: Mr. John Charles Harris and Mr. T. U. Trend, equal; Certificate: Mr. Henry Thomas Scott. Anatomy—Medal: Mr. Hubert Beadles; Certificate: Mr. Lewis Williams Yorath. Physiology—Medal: Mr. George Green; Certificate: Mr. T. U.

Trend. Surgery — Medal: Mr. Hubert Beadles; 1st Certificate: Mr. Charles Farran Squire; 2nd do.; Mr. George Green. Medicine—Medal: Mr. M. J. S. Perreau; Certificate: Mr. Charles Farran Squire. Dental Surgery—Prize: Mr. J. C. Harris; Certificate: Mr. T. U. Trend. Botany—Medal: Mr. John Charles Harris; Certificate: Mr. T. U. Trend. Materia Medica: Certificate: Mr. John Charles Harris and Mr. T. U. Trend, equal. Forensic Medicine—Medal: Mr. Charles Farran Squire. Midwifery—Senior Class Medal: Mr. John William Lake and Mr. George Green, equal; Junior Class: Mr. T. U. Trend; 1st Certificate: Mr. John William Middleton. Practical Chemistry—Prize: Mr. Charles Farran Squire.

Pathological Society of London.—This Society will meet on the 20th instant, in the rooms of the Royal Medical and Chirurgical Society, 53, Berners-street. The volume of "Transactions" for the past session will be distributed in the course of a few days.

The Cholera.—A correspondent who has just arrived from a visit to Russia and Norway says, "Cholera appeared to follow our track, and killed most in most unlikely places. When I was at Christiansand, the Medical men there were boasting of their immunity from epidemics, but I have just heard that they have lost 300 already."

Melancholy Case of Poisoning by Aconite.—A case of accidental poisoning occurred at Durham during the past week, which resulted in the death of the wife of Dr. Trotter, a physician residing in Old Elvet, under circumstances of an exceedingly painful and singular character. It appears that Mrs. Trotter for some time past had been suffering from tic douloureux, and that tincture of aconite was administered during the day to the deceased by Dr. Trotter under the firm impression that it was henbane; and after taking it she complained of sickness, and vomited. She, however, fell asleep, and at night, feeling somewhat better, Dr. Trotter administered another dose of the tincture, which speedily brought on increased sickness and death. An inquest was held, and the jury returned the following verdict:—"That the deceased came to her death by a dose of aconite administered by mistake, but how the mistake occurred there is no evidence to show."

Medical Benevolent Fund.—Until Dr. Parkes' return to London the Treasurer, Mr. Toynbee, 18, Savile-row, and the Assistant Secretary, Mr. Self, 8, Lucas-place, West, Commercial-road, East, will perform all the required duties. Subscribers will please to bear in mind that all communications respecting cases and grants are to be made to Mr. Toynbee. Subscriptions are to be paid to Mr. Self.

Iodide of Potassium in Asthma.—Dr. Stilwell states he has administered this in 5-grain doses three times a day with most marked effect, a slight expectoration of viscid mucus attended with an melioration of the urgent symptoms soon following. The iod. pot. gives the same relief in hay asthma, asthma from perfumes, and the like. He suggests its use in croup, as a means of disengaging the false membranes after the inflammatory action is subdued.—*Boston Journal*, vol. lvi. p. 159.

VITAL STATISTICS OF LONDON.

Week ending Saturday, October 10, 1857.

BIRTHS.

Births of Boys, 690; Girls, 678; Total, 1368.
Average of 10 corresponding weeks, 1847-56, 1396·8.

DEATHS.

	Males.	Females.	Total.
Deaths during the week	476	517	993
Average of the ten years 1847-56	..	..	1007
Average corrected to increased population	...	..	1108
Corrected average for corresponding week in ten years 1847-56	505·3	501·5	1006·8
Deaths of people above 90	0	4	4
Deaths in 13 General Hospitals	37	21	58

DEATHS IN SUB-DISTRICTS FROM EPIDEMICS.

	Population. 1851.	Measles.	Scarlatina	Hooping-Cough.	Diarrhœa.	Cholera.	Typhus.
West	376,427	3	10	4	10	..	8
North....	490,396	6	11	8	3	..	8
Central ..	393,256	5	4	4	3	..	14
East	485,522	3	14	6	14	1	14
South	616,635	4	13	4	11	..	13
Total..	2,362,236	21	52	26	41	1	57

DEATHS REGISTERED DURING THE WEEK.

Causes of Death.	In the Week ending Saturday, Oct. 10, 1857. Deaths of Persons. At all ages.	Under 20 Years of Age.	At 20 and under 40 Years of Age.	At 40 and under 60 Years of Age.	At 60 and under 80 Years of Age.	At 80 Years of Age and Upwards.	Averages of Temperature and Deaths in 10 Weeks.
Mean Temperature	Mean temp. ° 50·7						° 50·8
All Causes	993	524	141	147	138	43	1006 8
Specified Causes	992	523	141	147	138	43	998·2
Diseases:—							
1. Zymotic Class	244	182	21	20	18	3	320·7
2. Dropsy, Cancer, and others of uncertain seat	40	5	4	13	17	1	45·1
3. Tubercular Class	184	69	69	35	10	1	158 3
4. Of Brain, Nerves, etc. ..	105	53	6	18	24	4	100·5
5. Of Heart, etc.	27	3	1	13	10	..	37·1
6. Of Respiratory Organs ..	137	89	5	19	18	6	120·1
7. Of Digestive Organs ..	56	19	7	13	14	3	58·1
8. Of Kidneys, etc.	11	1	5	3	2	..	14·3
9. Of Uterus; viz. — Puerperal Disease, etc. ..	10	..	7	1	1	1	8·3
10. Of Joints, Bones; viz.— Rheumatism, etc. ..	6	..	2	1	3	..	5 7
11. Of Skin, etc.	6	5	..	..	1	..	1·7
12. Malformations	4	4	..	..	..	..	3·2
13. Debility from Premature Birth, etc.	38	38	..	..	..	..	25·9
14. Atrophy	39	33	1	2	3	..	31·7
15. Age	34	..	..	..	12	22	37·6
16. Sudden	5	3	..	1	1	..	6·0
17. Violence, Privation, etc...	46	19	13	8	4	2	24 1
Causes not specified.. ..	1	1	..	..	..	..	8·4

METEOROLOGY.

From Observations at the Greenwich Observatory.

Mean height of barometer	29·357 in.
Mean temperature	50·7
Highest point of thermometer	63·4
Lowest point of thermometer	41·9
Mean dew-point temperature	47·9
General direction of wind	S W.
Whole amount of rain in the week	0·83
Amount of horizontal movement of air in the week ...	605 miles.

BOOKS RECEIVED.

The Science and Art of Surgery. By John Erichsen. Second Edition. London. 1857.

Report of the Surgical Staff of the Middlesex Hospital upon the Treatment of Cancerous Diseases in the Hospital. London. 1857.

Medical Anatomy. By F. Sibson, M.D. F.R.S. Fasciculus V. London 1857.

The Anatomist's Vade-Mecum. By Erasmus Wilson, F.R.S. Seventh Edition. London. 1857.

Human Osteology. By L. Holden, F.R.C.S. Second Edition. London. 1857.

Prone and Postural Respirations in Drowning. By Marshall Hall, M.D. F.R.S. London. 1857.

Lectures on the Principles and Practice of Physic. By Thos. Watson, M.D. Fourth Edition. London. 1857.

Contributions to the Physiology and Pathology of the Circulation of the Blood. By George Robinson, M.D. London. 1857.

The Use of the Microscope in Clinical Medicine, No. II. By Lionel Beale, M.D., F.R.S. London. 1857.

On Plastic Operations for the Restoration of the Lower Lip. By T. P. Teale, F.R.C.S. London. 1857.

Urinary Deposits. By Golding Bird, M.D., F.R.C.S. Fifth Edition. Edited by Dr. Birkett. London. 1857.

A System of Practical Surgery. By W. Fergusson, F.R.S. Fourth Edition. London. 1857.

On Scarlet Fever, and the Crowing Inspiration of Infants. By P. Hood, Surgeon. London. 1857.

Observations on Diseases of the Alimentary Canal. By S. O. Habershon, M.D. Lond. London. 1857.

Guy's Hospital Reports. Third Series. Vol. III. London. 1857.

Mayne's Expository Lexicon. Part VI. London. 1857.

Sowerby and Johnson's Grasses of Great Britain. Part I. London. 1857.

Annual Report on the Health of the Parish of St. Marylebone for 1856. By R. D. Thomson, M.D., F.R.S. London. 1857.

Excelsior. No. III. Perth. 1857.

On Gastro-Colic Fistula. By C. Murchison, M.D. [Reprint from the Edinburgh Medical Journal. July and August, 1857.]

Middle-Class Education. No. III. London. 1857.

Midland Quarterly Journal of the Medical Sciences. October. 1857.

Report of the Trial of Madeleine Smith. By A. F. Irvine. Edinburgh. 1857.

The Asylum Journal of Mental Science. October. 1857.

The Quarterly Journal of Dental Science. October. 1857.

The Sanitary Review. October. 1857.

Boletin del Cuerpo Medico-Militar de la Republica Mexicana. Mexico. February. 1857.

TO CORRESPONDENTS.

M. A. B.—Many thanks.

Dr. Lindsay's paper on British and Asiatic Cholera shall appear next week if possible.

Veritas will see by Dr. Day's letter that the examination at St. Andrew's is not postponed. We cannot recommend one of the Universities named as more suitable for our Correspondent than the others.

Mr. Lush.—You are quite right. The subjects are those for 1857.

The letter of our Paris Correspondent is unavoidably postponed until next week.

The Sydenham Society.

TO THE EDITOR OF THE MEDICAL TIMES AND GAZETTE.

Sir,—In the *Medical Times* of September 26, a meeting of the Sydenham Society is called for October 5, to determine on the propriety of dissolving the Society, or of adopting other measures. May I ask the result? Probably other members of the Society, as well as myself, would be glad to know it. I am, etc. J. D.

10th October, 1857.

(We have been informed that a full, true, and particular account of this meeting will be sent to every member "as soon as the printer will allow it to be done."—Ed.)

Asiatic Cholera and its Prevention.

TO THE EDITOR OF THE MEDICAL TIMES AND GAZETTE.

Sir,—In my note on Asiatic Cholera, which you had the goodness to insert in your issue of October 10, the amount of dilute sulphuric acid to be added to the water is omitted. It should be half an ounce of dilute sulphuric acid to twelve ounces of water. Of this the dose, whether as curative or prophylactic, is one tablespoonful in a little water. I had not the pleasure of seeing Dr. Fuller's paper.

I am, etc. Henry M'Cormac, M.D.

Belfast, October 14.

W. C.—Metallic iron and gelatinous protoxide of iron dissolve in the cold in cod-liver oil. Water is, in most cases, required to promote the solution, excepting with iron reduced by hydrogen, which dissolves without such aid. Oil of sweet almonds dissolves iron, and acquires a mahogany red colour. Olive-oil, castor-oil, etc., dissolve iron without becoming sensibly changed in colour. Oxide of iron dissolves with more facility, in proportion as it has been more recently prepared, is humid, and has not been exposed to the air. Iron dissolved in oil is always found in the state of protoxide. Ether dissolves these oils, just as it would the same oils in their natural state. The other oxides of iron are scarcely at all soluble in oils, either with or without the aid of heat.

India-Rubber Fastenings for Artificial Teeth.

TO THE EDITOR OF THE MEDICAL TIMES AND GAZETTE.

Sir,—My attention having just been called to a notice in No. 337 of your Journal of my treatise "On a new Method of Fixing Artificial Teeth," wherein you question whether the India-rubber used for the purpose of covering the fastenings does not produce an unpleasant taste and smell, I beg to set your doubts at rest: the process to which the India-rubber is subjected thoroughly deodorizes it. I have applied it in numbers of cases for some time, and can vouch that it is perfectly free from both taste and smell, and has proved most satisfactory. Your insertion of this will oblige. I am, &c. J. Maurice.

316, Regent-street, October 14, 1857.

A Glasgow Apothecary wishes to obtain a good receipe for preparing sour crout, to use as an anti-scorbutic in place of lime-juice.

Alleged Case of Abortion.

TO THE EDITOR OF THE MEDICAL TIMES AND GAZETTE.

Sir,—I promised you last week a reply to the questions raised in your article on the Tunbridge (alleged) abortion case. I find, however, that it will be again brought before the magistrate on Thursday, and have therefore thought it better to postpone my explanation, as I do not wish to interfere with the ordinary course of justice. Begging the favour that you will insert this note,

I am, &c. John Charles Cooke, M.D.

East Temple Chambers, Whitefriars-street, Fleet-street, Tuesday.

Press.—According to the Paris journal *La Presse* there were published in August, 1857, 510 journals or periodical works. Of this number 40 only treated of politics, and consequently had to furnish securities. The other 470 were composed as follow—95 literary journals; 47 journals of fashions; 45 journals relating to the Bourse and commerce; 45 scientific journals; 39 legal and jurisprudential; 25 medical; 17 journals relating to administrative matters; 14 to agriculture, and 14 to bibliography. Every calling almost has its journal, and thus we have the advocates, the hatters, the barbers, the lotteries, the police, the archers, etc., etc., all represented.

There is no truth in a report which has appeared in some of the Daily Papers, that the remains of the murdered man found on Waterloo-bridge have been examined by Mr. Spencer Wells.

Logos.—Words which end in gram have a different meaning from thoes which end in graph, the former being derived from the Greek substantive γράμμα, the latter from the Greek verb γράφω. Thus "telegram" is that which is *written* at a distance, the telegraphic message; while "telegraph" is that which *writes* at a distance.

M.D. Examinations at St. Andrew's.

TO THE EDITOR OF THE MEDICAL TIMES AND GAZETTE.

Sir,—As I find from numerous letters which I have received that there is a report that the examination for the degree of M.D. at this University will be postponed, I beg to state that there is no foundation whatever for such a report.

The examination will commence, as already advertised in your columns, on Wednesday, the 21st of this month.

I shall feel obliged if you will find space for this note in the next number of the *Medical Times*. I am, &c. George E. Day.

St. Andrew's, Oct. 1857.

COMMUNICATIONS have been received from—

Dr. Robert Lee; Dr. Walshe; Mr. Haynes Walton; Dr. Day, St. Andrew's; Dr. Jenner; Mr. Toynbee: Dr. Lindsay, Perth; Dr. Risdon Bennett; Mr. Brodhurst: The Mexican Minister-General, Almonte; Mr. Paget; Mr. Benfield; Dr. M'Cormac; Mr. Solomon, Birmingham; Dr. Diamond; Mr. Griffin; Mr. Hart; Mr. Grantham, Crayford; Dr. Davidson; Mr. Wilson; Mr. Delves; Dr. Baines; Mr. W. White; Mr. Battar; Mr. Davey; Mr. Lush; Mr. Mackenzie; Mr. Hartley; Dr. Cooke; Mr. M'Dermott; Mr. Maurice; M. A. B.; Mr. Allen; Mr. Lawrance; Dr. Marcet; Mr. Proctor; Dr. Arnott Mr. Sansom; Mr. Devenish.

APPOINTMENTS FOR THE WEEK.

17. *Saturday (this day).*

Operations at St. Bartholomew's, 1½ p.m.; St. Thomas's, 1 p.m. King's, 2 p.m.; Charing Cross, 1 p.m.

Medical Society of London, 8 p.m.: Dr. Routh, "On the Mortality consequent on the Artificial Feeding of Infants"

19. *Monday.*

Operations at the Royal Free Hospital, 1 p.m.; Metropolitan Free Hospital, 2 p.m.; Orthopædic Hospital, 3 p.m.

20. *Tuesday.*

Operations at Guy's, 1 p.m.; Westminster, 2 p.m.

Pathological Society of London, 8 p.m.

21. *Wednesday.*

Operations at University College Hospital, 2 p.m.; St. Mary's, 1 p.m. Orthopædic Hospital, 3 p.m.

Hunterian Society, 8 p.m.: Mr. Cock will detail a Case of Hernia, with Remarks.

22. *Thursday.*

Operations at St. George's, 1 p.m.; Middlesex, 12½ p.m.; Central London Ophthalmic, 1 p.m.; London, 1½ p.m.

23. *Friday.*

Operations at the Moorfields Ophthalmic, 10 a.m.; Westminster Ophthalmic, 1½ p.m.; Great Northern, 2½ p.m.

Western Medical and Surgical Society, 8 p.m. Mr. Lane will deliver the Introductory Address.

EXPECTED OPERATIONS.

King's College Hospital.—The following operations will be performed at this Hospital to-day, Saturday.

Removal of tumour from neck; removal of diseased bone from the tibia in two cases; removal of necrosed bone from femur; opening up of sinuses in the abdominal wall; staphyloriphy, by Mr. Fergusson.

Ligature of varicose veins, by Mr. Partridge.

James's Powder.—Physicians and

other Medical Practitioners having complained of the frequent use of Antimonial Powder, instead of the genuine "James's Powder" prescribed, have represented to Messrs. Newbery, that the price of the powder has greatly led to this fraudulent practice, and has also greatly prevented the more general use of the powder. Messrs. Newbery have therefore yielded to the suggestions of the Profession, and have reduced the price; and, to secure the use of the genuine medicine, recommend that the same should be prescribed as prepared by Messrs. Newbery—thus, "Pulv. Jacobi Ver." (Newbery's.) The price for dispensing will henceforth be reduced from 21s. to 9s. an ounce. The genuine has the name, "F. Newbery, 45, St. Paul's-Churchyard," engraved on the Government Stamp.

PRESCRIPTIONS.

To the Profession requiring their Prescriptions to be faithfully prepared.

In consequence of the numerous

mistakes which have lately occurred through the carelessness of inexperienced Chemists, Messrs. CURTIS deem it expedient to make known to Medical Men that their method of transacting business precludes the possibility of error, thus offering peculiar advantages for the DISPENSING of MEDICINES. Their business is long established, centrally situated, and commands a good share of support.

15, Crawford-street, Bryanstone-square, June, 1857.

Varicose Veins and Supporting Belts.

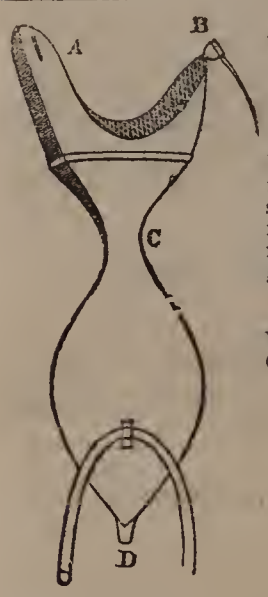
—SURGICAL ELASTIC STOCKINGS AND KNEE CAPS, pervious, light in texture, and inexpensive, yielding an efficient and unvarying support, without the trouble of lacing. Likewise, a strong low-priced article for Hospitals and the Working-Classes, ELASTIC NEW CORSETS of the same beautiful fabrics. ABDOMINAL SUPPORTING BELTS for both Sexes; those for Ladies' use, before and after accouchement, are admirably adapted for giving adequate support with extreme lightness – a point little attended to in the comparatively clumsy contrivances and fabrics hitherto employed. Instruction for measurement and prices on application, and the articles sent by post from the Manufacturers, POPE and PLANTE, 4, Waterloo-place, Pall-mall.

The Profession, Trade, and Hospitals, supplied.

Bass's East India Pale Ale, Barclay's

Porter and Stout, in 18-gallon Casks, Bottles, Half-Bottles, and Imperial Pints.

BERRY, Bros. and Co., 3, St. James's-street, London, S.W.



Walters' India-rubber

URINALS.

F. WALTERS, having originally invented these Urinals, begs to warn the Profession of the many bad and useless imitations which are now sold, and he would advise them, before purchasing, to look that they are stamped with his name; as, unless that be the case, he cannot guarantee them.

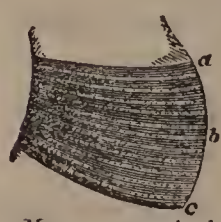
Made of Solid India-rubber, with Patent Valve, and adapted for Ladies, Gentlemen, and Children.

F. WALTERS,
16, MOORGATE STREET,
LONDON,

Agent for BECKWITH'S PATENT JACQUARD STOCKINGS.

Huxley's Spiral Abdominal Belt

is constructed on a principle which secures the required support, without being liable to displacement, the fault which has hitherto characterised these appliances. When required, they are fitted with Air-pads for Umbilical, Inguinal, and Femoral Hernia; also with a longitudinal Air-pad for the support of the lower part of the Abdomen, and band with Air-pad for Prolapsus Uteri and Prolapsus Ani. These goods, in addition to Stockings, Thigh-pieces, Knee-caps, etc., supplied 25 per cent. lower than the prices hitherto charged, every article being of the very best quality.



Measures required—circumference at *a*, *b* and *c*; depth from *a* to *c*.

Priced and Illustrated Catalogues on application to E. HUXLEY, 8, Old Cavendish-street, Oxford-street, W.

Pepsine.—M. Boudault begs to state

that he cannot be answerable for the purity and strength of any Preparation sold under his name unless obtained from his sole Agent, Mr. PETER SQUIRE, her Majesty's Chemist, 277, Oxford-street, London, to whom all applications respecting it must be addressed. A Translation of his Pamphlet on Pepsine may be had of his Agent, on receipt of three Postage-stamps.

24, Rue des Lombards, Paris.

Henry Simpson, 55, Strand, London,

Surgical Instrument Maker to the Royal Naval Hospitals and Royal Navy, &c. &c. Manufacturer of every description of Surgical Instruments, Trusses, Bandages, Artificial Limbs, Splints, Crutches, Enema and other Syringes, &c. &c. Best quality (only), at the most moderate prices. Manufacturer of all kinds of Cutlery. Prize Medal, 1851.

F. Bowles, late Windsor & Co., Phial

and BOTTLE MERCHANTS, Dealers in Druggists' Sundries, &c. 37, Bartholomew-close, City. The cheapest house in London for every description of Medical Glass of the best quality.

Samples and Prices forwarded free on application.

Ladd's Students' Microscopes.

Compound Achromatic Students' Microscope, from ..	£4	15	6
Ditto, ditto, with ¼ and 1-inch Object-glasses, in Mahogany Case	8	0	0
No. 2.—Compound Achromatic Microscope, with two eye-pieces and forceps	9	10	0
Ditto, with ¼ and 1-inch Achromatic Object-glasses, of large angular aperture, Polariscope, Condenser, Animalcule Cage, and Mahogany Cabinet	21	7	0
No. 1.—Large size ditto, of very superior workmanship.. ..	18	18	0
Ditto, ditto, with three Object-glasses, and apparatus very complete	42	0	0
Quekett's Dissecting Microscopes	2	2	0

Opera Glasses, Telescopes, &c. &c.

Catalogues to be had upon application to W. LADD, 31, Chancery-lane, London.

Great Reduction in the Prices of New

MEDICAL GLASS BOTTLES and PHIALS, at E. AND H. HARRIS'S, 2, UPPER COPENHAGEN-STREET, BARNSBURY-ROAD, ISLINGTON, LONDON.

6 & 8 oz., any shape, plain or graduated ..						8s.	per gross.	
3 & 4 oz.,	do.			do.	..	7s.	6d.	do.
½ oz. moulded phials ..	..	..	..	..		4s.	6d.	do.
1 oz.	do.	..	..	..	..	5s.	6d.	do.
1½ oz.	do.	..	..	..	..	6s.		do.
2 oz.	do.	..	..	..	..	7s.		do.

Delivered free within 7 miles. Packages free. No remittance required until the goods are received In quantities of not less than 6 gross, assorted to suit the convenience of the purchaser. Post-office order, payable to E. and H. HARRIS, at the Chief Office, London.

Reference: Union Bank of London.

Great Saving in the Purchase of Six

GROSS of NEW MEDICAL GLASS BOTTLES and PHIALS, assorted to suit the convenience of Purchasers, at ISAACS & SON'S, 6, Warren-street, Tottenham-court-road, London.

					s.	d.	
6 and 8 oz., any shape, plain, or graduated ..					8	0	per gross.
3 and 4 oz.,	ditto		ditto	..	7	6	do.
½ oz. Moulded Phials ..	..	..	..	..	4	6	do.
1 oz.	ditto	..	..	..	5	6	do.
1½ oz.	ditto	..	..	..	6	0	do.
2 oz.	ditto	..	..	..	7	0	do.

No remittance required until the goods are received. Packages free. Delivered free within seven miles. Immediate attention to country orders. Post-office Orders payable to S. Isaacs and Son, at the Post-office, Tottenham-court-road, London.

Bankers: Unity Bank.

The Objects most to be desired in

effecting a LIFE ASSURANCE.—These are, Perfect Security and the Largest Benefits in proportion to the Contributions paid. They are both fully attained in the SCOTTISH EQUITABLE LIFE ASSURANCE SOCIETY, which is now of Twenty-six years' standing, and possesses Accumulated Funds, arising from the contributions of Members only, amounting to upwards of One Million Sterling, and has an Annual Revenue of upwards of £176,000.

The MUTUAL PRINCIPLE being adopted, the entire surpluses or "Profits," as ascertained Triennially, are allocated in addition to the sums Assured, and they present a flattering prospect to the Members. For example: the sum now payable on a Policy for £1000, effected in 1831, is £1590 5s. 8d, being a return of Seventy-one per Cent. on the premiums paid on middle-aged lives, and Policies effected in later years are similarly increased.

The NEXT TRIENNIAL DIVISION of PROFITS will take place on 1st MARCH, 1859.

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The Medicated Cod Liver Oils,

comprising
OLEUM MORRHUÆ CUM QUINA.
OLEUM MORRHUÆ CUM FERRI IODIDO.
&c. &c. &c.

Prepared only by SAVORY and MOORE, 143, New Bond-street.

ORIGINAL LECTURES.

A COURSE OF LECTURES
ON THE
NATURE AND TREATMENT
OF THE DISEASES OF THE EAR,

DELIVERED AT

St. Mary's Hospital Medical School.

By JOSEPH TOYNBEE, F.R.S.
Aural Surgeon to St. Mary's Hospital, Lecturer on Aural Surgery at St. Mary's Hospital Medical School, and
Consulting Aural Surgeon to the Asylum for the Deaf and Dumb.
(Reported by JAMES HINTON, Esq.)

LECTURE XVIII.—*concluded.*
THE TYMPANITIC CAVITY.

Chronic Inflammation.

Chronic inflammation of the mucous membrane lining the tympanic cavity may be divided into two kinds, *simple* and *catarrhal*, according to whether there is or is not a perforation in the membrana tympani. When there is a perforation, the discharge which takes place from the mucous membrane usually is more abundant than when the membrane is entire, and it escapes from the tympanic cavity into the meatus, and thence it makes its appearance at the orifice of the outer ear.

1. *Simple Chronic Inflammation with Hypertrophy.* — This affection is of frequent occurrence in childhood and in the adult. I will speak of it first in *children*. It most usually takes place in children who are subject to glandular enlargements, and in whom the mucous membrane of the fauces, nares, and tympanic cavities is thicker than natural: an attack of cold, measles, or hooping-cough is often the exciting cause. In some cases it is accompanied by attacks of pain in the ear, at others the membrane gradually becomes thick, and the tympanic cavity distended by mucus, without the occurrence of any other symptom than dulness of hearing or noises in the ears: sometimes the deafness gradually disappears for some days or weeks, and then re-appears. The attacks of pain are often severe, but usually they last but for a short time, and then disappear entirely for many hours. They commonly come on at night, after the head has been placed low, so that the blood has gravitated to the membrane, and distended its vessels. Upon *examination* the mucous membrane of the fauces is usually found to be thick, and the tonsils are not unfrequently enlarged. The Eustachian tube is often impervious. Upon looking into the ear by means of the speculum, the dermis of the meatus, partaking of the general tumefaction, is usually observed to be swollen so that the calibre of the tube is considerably diminished, and it is not easy to obtain a satisfactory view of the membrana tympani. When the latter membrane is seen it is found to be deprived of its natural glistening aspect, the triangular bright spot has either wholly disappeared or it is extremely dull, and the membrane has a dark sodden appearance. Frequently it is more concave than natural externally.

The *treatment* consists in reducing the congestion of the mucous membrane by the application of one or more leeches below each ear; in keeping up a slight counter-irritation over the mastoid processes, in the use of a gargle, and a stimulating liniment over the region of the throat, and in administering tonic medicines. As a general rule, under this treatment the symptoms wholly disappear, and the child entirely recovers the hearing. But if the disease has been long neglected; if frequent attacks of inflammation, as indicated by pain, have been allowed to occur without interference, the membrane may have become extremely rigid, and the deafness is not at all, or but slightly diminished by the most active treatment; and unless it is pursued during several months there is no hope of improvement.

In the *adult*, simple chronic inflammation of the tympanic mucous membrane with hypertrophy, comes on much more insidiously than in the child. The pain is usually very trifling, and recurs at irregular intervals. A sensation of fulness or weight in the ear is often experienced, which is sometimes accompanied by singing noises. Dulness of hearing gradually comes on, and is usually increased during an attack of cold. Upon *examination* the external meatus is generally observed to be congested, the blood-vessels of the dermis being enlarged and distended. The external surface of the membrana tympani is deprived of its natural brightness, and instead of being translucent the substance of the membrane is observed to be somewhat opaque, its inner layer being thick and congested. Upon using the otoscope, air is heard to enter the tympanic cavity through the Eustachian tube; but when it is blown into the tympanum, or allowed to enter in a small quantity during the act of deglutition with the nose and mouth closed, instead of the delicate crackling sound, a dull flapping sound is produced. The amount of deafness varies much; sometimes there is only a slight dulness, at others the patient requires to be spoken to loud at the ordinary distance. When the power of hearing is much further diminished there usually exists partial or complete anchylosis of the stapes to the fenestra ovalis, a disease to be spoken of hereafter.

The *treatment* of this affection in the adult is very similar to that in the child. As a rule, however, the counter-irritation requires to be persevered in for a longer period, and small doses of mercury and iodide of potassium resorted to. In cases where the mucous membrane of the fauces is tumefied, the nitrate of silver may be applied and astringent gargles used.

CASES.

Chronic inflammation, and hypertrophy of the tympanic mucous membrane, accompanied by dulness of hearing, pain, and discharge: cure.—Miss F. P., aged 7, in tolerable health, but pallid, and subject to enlargement of the tonsils, and to thickening of the mucous membrane of the fauces and nares. She habitually breathes through the mouth on account of the air not passing with perfect freedom through the nose. Has had the sub-maxillary glands slightly enlarged.

History.—A year previously to seeing me, suddenly complained of pain in the right ear at night, which disappeared in the day; this pain recurred each night for about ten days, and then disappeared, no other remedy having been applied excepting the roasted central part of an onion. After having been free from pain for six weeks, the pain recurred, and was treated by the application of some drops containing opium in solution, and after a fortnight or three weeks it again ceased. During the last four months there has been at times a pain in both ears, and a slight discharge from the right; recently a slight dulness of hearing has been detected. At first it was so slight that the friends supposed it was only inattention, but latterly it has decidedly increased. On *examination* the tonsils were observed to be slightly enlarged, and the mucous membrane of the fauces was red and thick. *Right ear.*—The dermoid meatus was red and thicker than natural, and the membrana tympani was dull, dark coloured, and opaque. The child could not be taught to swallow saliva with the mouth and nose closed, so that the state of the Eustachian tube was not accurately diagnosed, but as the membrana tympani was not more concave than natural, and as the deafness was neither so great nor so variable as in closure of the Eustachian tube, it was presumed that the tube was pervious. Hearing distance three inches. *Left ear* in the same state as the right, excepting that the hearing distance was five inches.

Treatment.—A leech was ordered to be applied below each ear, followed by slight vesication; the mucous membrane of the glands was brushed with a solution of nitrate of silver, (gr. xxx. ad ℥i.,) and tonics were administered in the form of quinine and iron.

Result.—The pain did not recur; the power of hearing gradually returned, and was perfect at the end of a month, and the child's health greatly improved. The patient has had in the course of the year following the above-named attack, a slight relapse, which yielded to a repetition of the same treatment.

Chronic inflammation and hypertrophy of the tympanic mucous membrane after measles.—Miss F., aged 10, in good health.

History.—Two years previously had an attack of measles, which was followed by a slight ear-ache and dulness of hearing in each ear, especially in the right. This dulness of hearing disappeared after a few months, when the patient was staying at the sea-side, but it recurred upon her return to London. It has recently been increasing so that she does not

hear unless spoken to in a distinct voice, and within the distance of five or six feet. Upon *examination* the dermis of each meatus was observed to be swollen, and the surface of each membrana tympani dull, and having a sodden appearance. Upon blowing the nose air was heard to enter each tympanic cavity, and to induce a flapping sound. The mucous membrane of the fauces was thicker than natural.

The *Treatment* adopted was the same as in the last case, with the same result.

Chronic inflammation and hypertrophy of the tympanic mucous membrane following an attack of mumps and scarlet fever, increased by a cold; treatment by counter-irritation, grey powder, and tonics: cure.—Miss M., aged 16. Health good.

History.—Three years previously, after an attack of mumps, complained of ear-ache in the left ear, which was followed by a discharge of fourteen days' duration. A year and a half ago, subsequent to an attack of scarlet fever, dulness of hearing gradually came on in the left ear, which remained until about a month ago, when after a cold it became rapidly worse, so that at the present time general conversation is not heard. This dulness of hearing was still further increased during an attack of ordinary cold. Upon *examination* the mucous membrane of the fauces was observed to be red and relaxed. *Right ear.*—Meatus natural. Membrana tympani hazy; the bright spot was indistinct, but double. Eustachian tube pervious. Hearing distance twelve inches. *Left ear* in much the same state as the right. Hearing distance three inches.

Treatment.—A grain of grey powder was administered every night, and a portion of vesicating paper was kept constantly applied behind each ear; subsequently small doses of sulphate of iron were given in addition to the grey powder. In ten days the *right ear* had greatly improved, so that the hearing distance was increased to two feet; the left ear remained in the same state as at first. On the twenty-second day of treatment the right ear was perfectly restored, and the hearing distance of the left was increased to six inches. On the fortieth day the left ear was still further improved, the hearing distance being nine inches. The patient was not seen subsequently, but at the time of leaving me she heard general conversation perfectly.

Chronic inflammation of the tympanic mucous membrane after bathing; pain for an hour daily; great dulness of hearing for two years: cure.—Master M., aged 17. Health tolerable.

History.—For two or three years after bathing has suffered from dulness of hearing, which has recently increased so much that he cannot hear a voice unless it is most distinct and addressed to him; for a few weeks previous to his consulting me has suffered from pain in the right ear, which has lasted for about an hour every day. Upon *examination* of the right ear the hearing distance was found to be half an inch; the membrana tympani was opaque; the Eustachian tube pervious; but the air enters in with a flapping sound. *Left ear.*—Hearing distance six inches; membrana tympani opaque; Eustachian tube pervious.

Treatment.—Vesicating paper was applied behind each ear, so as to keep up a slight but continuous discharge, and the twenty-fourth of a grain of the bi-chloride of mercury was administered twice daily.

Result of treatment.—In eleven days the hearing distance of the right ear was increased to one inch, in the left ear to ten inches. This improvement advanced, and at the end of two months general conversation was heard perfectly, and the hearing distance of the right ear was one foot, and that of the left the same.

Chronic inflammation and hypertrophy of the mucous membrane after a cold; dulness of hearing: cure.—Mast. H. K., aged 14. Health very delicate formerly, lately better. His father has been deaf since the age of twenty-one.

History.—Two years ago took a very severe cold, which was followed by a swelling of the tonsils and sub-maxillary glands, and by dulness of hearing; the latter came on very slowly, and has been gradually increasing up to the time of his consulting me. He now requires speaking to distinctly within a yard's distance. The dulness of hearing is increased during a cold, at which time the mucous membrane of the fauces is red and relaxed. Upon *examination* the faucial mucous membrane was observed to be thick, and the right tonsil was larger than natural. *Right ear.*—Hearing distance one inch. Meatus; the dermis somewhat swollen. Membrana tympani, opaque. Eustachian tube normal: when air is blown into the tympanic cavity it enters with a flap. *Left ear* in the same state.

Treatment.—A slight discharge was kept up over each mastoid process; the mucous membrane of the fauces was washed with a solution of nitrate of silver (ʒj ad ʒj) once a week, and the thirtieth of a grain of the bi-chloride of mercury was administered twice daily in combination with a tonic.

Result.—In twelve days the hearing had decidedly improved, so that the watch was heard at the distance of three inches; and after a month's treatment the improvement had so far increased that the hearing distance of the watch was nine inches, and general conversation was heard distinctly.

Sometimes the thickening of the mucous membrane of the tympanum appears to be the result of rheumatic inflammation; in such cases, in addition to the plan already detailed, it is desirable to subject the patient to the treatment usually adopted for chronic rheumatism.

Sometimes the chronic inflammation of the mucous membrane of the tympanic cavity appears to partake of a rheumatic character.

ORIGINAL COMMUNICATIONS.

ARMY MEDICAL REPORTS.

(Selected, by Authority of the Director-General, from Documents in the Office of the Army Medical Department.)

No. XXXIII.

OBSERVATIONS ON THE

STATISTICS OF DISEASES OF THE BRAIN AND NERVOUS SYSTEM,

AS THEY AFFECT SOLDIERS, OFFICERS, WOMEN, AND CHILDREN IN INDIA.

By CHARLES ALEXANDER GORDON, M.D.
Surgeon, 10th Regiment of Foot.

(Continued from page 385)

Phrenitis sometimes arises from an extension of inflammation from the internal auditory canal. Such cases are fortunately extremely rare in India, but when they do happen are very fatal. Another fertile source of the affection is much exposure to the influence of the sun, especially after indulgence in ardent spirits, and it is to be presumed that many sudden deaths among great sportsmen in that country arise from the disease thus produced.

In addition to its occurrence in an acute form, this disease is perhaps still more frequently met with in a chronic state, and in such case it is included under some other head. Some of these have been already alluded to, and there is every reason to believe that certain manifestations of mental infirmity met with among drunkards and persons much exposed to climatericial influences depend upon the existence of chronic inflammation within the head.

Apoplexy and *coup de soleil* include the same conditions of the body, constituting what is now described by some writers as "insolation." The term apoplexy, however, as employed in official returns in India, includes also the two forms of that disease occasioned by serous and sanguineous effusion met with at home; these latter forms constituting but a tithe of the cases that in that country come under this denomination, as the age and condition of the persons constituting a regiment there are dissimilar from those of persons subject to apoplexy in the United Kingdom.

The term "sun-stroke" has been applied to the conditions now about to be considered, not only by the natives of India from time immemorial, but by the inhabitants of every country where such cases occur. That mere exposure to the heat of the sun is alone not always capable of producing it, is proved by the fact that soldiers in India, who are permitted to indulge in out-door amusements, are not so liable to the disease as are those who, from compulsion or inclination, are much confined to the house during the hot weather; and we moreover know that persons may be for considerable periods exposed to a temperature very many degrees higher than what mere solar influence produces, and yet no evil effects arise therefrom.

Indian Medical officers are, morever, aware of the fact, that the disease termed apoplexy, coup de soleil, or insolation, is not so much to be dreaded during the intensity of the dry heat, when the hot winds prevail in greatest force, as in those calm, sultry days, when the sun is obscured either by a film of clouds or by the impalpable dust at that season diffused through the atmosphere. In the upper provinces, more especially, such meteorological conditions, if not speedily interrupted by a violent storm, are found frequently to precede the occurrence of an earthquake; and under such circumstances, not only do cases of apoplexy occur among our troops, but it is not unusual to see inferior animals, such as those domesticated about our houses, fall down and suddenly expire.

From these circumstances, therefore, it appears evident that this particular disease depends upon some other influence than mere solar heat.

Post-mortem examination fails to detect in such cases appearances sufficient to account for the fatal result; while some of the symptoms that prevail during life are such as to seem difficult of explanation.

How, for instance, are we to account for the great increase of heat over the whole surface, but especially the intensely pungent heat over the epigastrium?—a heat of so peculiar a nature, that the fingers do not lose the sensation of it for a considerable time after touching the part. How, also, are we to account for the great oppression under which the functions of respiration and circulation evidently labour?

Is it that the disease has its seat in the sympathetic system of nerves, and the solar plexus is primarily affected?

Such are some of the questions which, however inapplicable to "apoplexy" as met with in the United Kingdom, nevertheless naturally present themselves to the observer of that peculiar modification of the disease met with in India, and to which the present observations more especially refer; and, although time will not permit their further discussion here, I would wish to draw attention to them, with a view to their further elucidation.

The object of all statistical inquiries should be, by giving a just representation of what has been observed, thus to indicate what may be expected to occur under similar circumstances. With this view, I would mention that such is the usual rate of mortality from this description of apoplexy among soldiers in India, that of 28 cases of the disease of which I have records of having been treated under my own immediate observation, only one recovered, and this man so imperfectly as to have to be sent to another climate, and finally discharged the service.

The treatment pursued in this one and only successful case consisted in the application of slight cautery to the nape, opening the right temporal artery, and, while the patient lay unconscious, and the blood was allowed to flow, a powerful jet of water was directed upon the head, at the same time that a similar one was directed upon the epigastrium. Five drops of croton oil, mixed with calomel and sugar, were meantime introduced into the mouth, with the chance of some finding its way into the stomach; the pulse was watched, and the quantity of blood abstracted regulated thereby, effect, and not quantity, being observed.

That the treatment was active will no doubt be admitted; but as the various remedies employed had, when used singly, failed in all other cases, it must be confessed that success was not at first anticipated from their combination.

The symptom that dictated the employment of cold affusion to the epigastrium was the circumstance of the patient continually striking that region with his open hand while he lay in a state of unconsciousness; and this, added to the intense heat of the region, strengthened suspicions I had previously entertained, that much of the disease was seated there.

This patient was restored to consciousness by a continuance of this treatment for less than twenty minutes; but whether such recovery was attributable to the bleeding, the croton oil, the cautery, or the affusion, singly or collectively, must be tested by further experience; but I trust an allusion to them will not be considered out of place here.

On second thoughts I am induced to enter somewhat more fully into the history of this case than the original plan of these papers demanded, and think the actual condition of the patient at the time of attack, as taken from notes of the case written at his bedside, may be useful to Medical officers serving in localities where the disease is prevalent:—

"Private Jeremiah M'Carthy, 10th Regiment, aged 30 years; admitted at Wurrurabad, in the Punjab, 17th October, 1852, suffering from giddiness and general debility. Had been subject, for a few days previous, to diarrhœa. On the forenoon of the following day he was found lying in the rear in a state of insensibility, and with all the symptoms of apoplexy of the hot winds. There was much suffusion of the eyes and countenance; the temporal arteries were distended; the epigastrium pungently hot, and he kept constantly striking that region with his hand during his insensibility. He voided fæces involuntarily in bed. He remained in this state for a period of upwards of two hours before treatment was employed.

"The remedial measures had recourse to were opening the right temporal artery, cold affusion to the head and epigastric region, slight cautery to the nape. It having been observed during the state of unconsciousness that he indicated a desire to drink (the motions of the mouth imitating those of drinking) cold water was given, and he imbibed it with avidity. After he had bled to probably ʒxij. consciousness began to return. He then had a dose of croton oil and calomel, and in the course of a few minutes afterwards was able to answer questions rationally; complaining, however, of a sense of giddiness and heaviness in the head."

The subsequent daily progress of the case need not be further alluded to in a statistical paper like the present.

Great as the mortality of the cases noted as "apoplexy" and "coup de soleil" have been—that is, 80 per cent. attacked among soldiers, 66·66 among officers, and all the children—there is, nevertheless, reason to believe that even here the mortality among the two former classes does not represent what actually occurs from these diseases in their characteristic form, and that some, at least, of the recoveries took place in persons affected with the form of ardent fever already alluded to, or with the ordinary forms of apoplexy met with at home.

The entire absence of attacks of the above nature among the women of the 10th Regiment is somewhat remarkable, and probably arises from some other circumstance than the less degree of exposure to atmospherical influences, to which they, as compared with men, are liable, for, with this single exception, there is not very great difference in their manner of life, at least as regards food, and, it is to be feared, drink also.

Perhaps it may be that this is one of the diseases to which women are in India, in consequence of their peculiar constitution, less liable than men; for it is very seldom that we hear of a case among officers' wives, and it is well known that the chances in favour of life generally in that country are much greater than of men, nor are figured statistics necessary to prove this; it is readily shown by comparing the number of soldiers' wives who have lost two, or even three husbands, with the number of marriages among men in the non-commissioned ranks.

These two diseases prevailed in the 10th Regiment in the ratio among men of 0·38 per cent. mean strength, among officers 0·73, and among children 0·12. It would appear, however, that the rate of occurrence of these diseases in this corps is much inferior to what takes place among white regiments generally; for I find that the Buffs, in which I formerly served in that country, had 2·17 cases of this disease per 100 men during the hot season of 1844, to which year alone my notes regarding that regiment refer.

It may be observed, in conclusion, that natives of India are by no means exempt from the form of apoplexy here described, although I have not at my disposal returns showing the relative prevalence of the disease among them and among white troops in that country.

September, 1856.

(To be continued.)

ON THE OUTBREAK OF CHOLERA AT ABBEY-ROW, WEST HAM.

By JOHN SNOW, M.D.

On seeing the notice in the *Medical Times and Gazette* of the 17th instant of the outbreak of cholera at West Ham, I called on Dr. Elliott, of Stratford, who was kind enough to take me to the place where the outbreak occurred, and to inform me of

the various particulars connected with it. I also made some inquiries of the inhabitants, and the proprietor of the greater part of the property was good enough to give me some information respecting the drainage. The row of small houses in which the outbreak has occurred is situated, as was stated in the *Medical Times and Gazette*, about a hundred yards from the River Lea, and about two miles from the Thames. The row consists of eighteen dwellings: sixteen of these contain but two rooms, one over the other, and a small back kitchen; at the north-east end of the row, which is the farthest from the River Lea, is a house with four rooms, and at the opposite end of the row is a still larger house, occupied by the proprietor of the large flour-mills, a few paces further on, situated on the banks of the Lea, and partly overhanging it.

The only water which the inhabitants of Abbey-row used for every purpose was that of a pump-well near the middle of the row, and across the road. It is a shallow pump-well, of not more than twenty feet deep, in the opinion of the proprietor. A few years ago, before this well was sunk, the inhabitants of the place had no other water than that of the Lea. Besides Abbey-row, the above pump supplied a dwelling in the above-mentioned flour-mill, a small dwelling just beyond the mill, and across the bridge, called the toll-house, and four very small cabins of one room a little way—perhaps thirty yards—from the mill, and situated under the bank of the Lea, and much below its level when the tide is up. When standing on the bank of the Lea, just above the water's edge, one is almost on a level with the roofs of these cabins.

The number of inhabitants in the dwellings having the water supply of the above-mentioned pump was, at the beginning of the epidemic, 115, and they were distributed as follow; 93 in Abbey-row, 7 in the flour-mill, 2 in the small toll-house, and 13 in the four little cabins. The cases of cholera at West Ham have been confined to this population, with one exception to be mentioned afterwards. Out of the above-mentioned 115 persons, 6 died of cholera between the 3rd and 13th of the present month, being rather over 5 per cent. These 6 fatal cases indeed all occurred in Abbey-row, having but 93 inhabitants. Dr. Elliott informed me that there were also 6 or 7 very severe and decided cases of cholera which ended, or were in progress, of recovery. Cases which proceeded no further than diarrhœa, but which form a part of the same outbreak were numerous: by inquiry from house to house I found that, from September 29th, when the first case (not fatal) occurred, till October 16th, there had been 19 cases of illness with bowel complaint, sufficiently severe to require medical treatment, in addition to the fatal cases; so that above one-fifth of the inhabitants were more or less implicated in the epidemic. As some families were from home, or had removed, there might have been slight cases of illness that I did not hear of. I was only informed of one case of illness amongst the 13 inhabitants of the four little cabins mentioned above, so that they seem to have escaped rather better than the other inhabitants having the same drinking water. These cabins are inhabited by the families of labourers. The inhabitants of Abbey-row are clean looking and apparently industrious people. The men are chiefly employed in a large silk factory close by. The single case of cholera which occurred to any one at West Ham, or even near it, so far as is known, happened to the sister of a licensed victualler, living opposite to Abbey-row, and assisting in the business. The public house was supplied by a separate pump-well, on the premises. The public-house is distant from Abbey-row only the width of the road; and I may mention that, except where this public-house obstructs it the view extends from the front of the dwellings in Abbey-row across the marshes to the shipping at Blackwall and Greenwich.

The water of the pump which supplied the houses described above, was very impure, letting fall a copious deposit of dirty organic matter on standing. The nature of this deposit leaves no doubt on any one's mind that it proceeds from the sewer and drains which pass within a few feet of the well: but whether the leakage is by percolation, or by a direct opening, has not yet been determined. There is a ditch or sewer which passes behind the pump-well, and within a few feet of it. The ditch is now covered at this spot, but Mr. Kayess of West Ham Abbey showed me a plan of it. This ditch or sewer flows into the Lea when the tide permits, but at other times the water from the Lea flows back up the ditch, as may be observed; for it is still open in a great part of its course between the river Lea and the pump. The drains from Abbey-row pass under the road, and pass very near to the pump-well, before entering the above-mentioned tidal ditch. The five houses in Abbey-row nearest to the house of the proprietor of the flour-mill belong to that gentleman; they are each provided with a privy over a cesspool; some, at least, of these privies have an overflow drain, which passes under the house and road to reach the tidal sewer. The remaining twelve houses belong to Mr. Kayess, mentioned above, and the privies of the first eleven of these were converted about a year ago into water-closets, the water being however carried from the pump and thrown down.(a) These closets communicate, by means of drain pipes, with a large covered cesspool at the back of the row, which receives also all the water used in the cottages; the overflow from the cesspool passes into the tidal sewer, by a drain which passes under the floor of the first house (that adjoining the last of the five belonging to the proprietor of the flour-mill) and then passes under the road and near to the pump-well.

The impurity of the water of this pump-well was a chronic affair, and therefore, as mere impurity, would not account for the remarkably sudden and circumscribed outbreak of cholera which has occurred around it. Moreover, mere impurity in the water was never known to cause, or even aggravate, cholera. In all the sudden outbreaks of cholera which I have been able to connect with impure water, and have related in previous volumes of this Journal, and the two Journals from which it sprung, there has always been either absolute proof or strong presumption that the evacuations of a cholera patient had entered the water. In the fearful outbreak of cholera near Golden-square, which I described in the *Medical Times and Gazette* in Sept. 1854, I could myself only bring forward statistical and other evidence of the effect of the water, not having the power to open the well and adjoining drains; but when this was done by the parish authorities, at the suggestion of the Rev. Henry Whitehead, six months afterwards, the pump-well which caused the outbreak was found to be the recipient of the overflow from a cesspool, into which the evacuations of a child ill of cholera had been emptied within three days before the great irruption of the disease.

At Abbey-row, the contamination of the pump-well, forming the sole water-supply of the place, by the drains and sewer, which carry away the overflow from the water-closets and privies of that row, explains the way in which the cholera was propagated to so great an extent on the spot, when once it was introduced. Many of the persons attacked had had no personal communication with any previous patient. Some cases of illness followed a day or two after a previous case in the same family, and in these instances it is probable that the morbid matter of cholera was swallowed in the more ordinary way, without the medium of the water. I ascertained that a great number of the persons attacked were in the habit of drinking the water cold; but, in addition to the opportunity of taking the disease when it is first introduced into a household without the intervention of the water, it must be acknowledged that water, even before being boiled, enters in so many ways into the preparation of articles of diet, that every one is liable to take it.

Cholera prevailed in Abbey-row in 1832, 1849, and 1854, but not to the same extent as in the present month.

With regard to the introduction of the disease on the present occasion, the explanation I have to offer is somewhat circuitous, but is well supported by what has occurred in previous epidemics. In the Weekly Return of Births and Deaths for September 26 of the present year, the following death is recorded:—"At Horselydown, on board the Lütcken, on 22nd September, a seaman, aged 27 years, cholera Asiatica (nineteen hours.)" The following note is added—"The ship Lütcken arrived at Horselydown on the afternoon of the 21st instant from Harburgh (Hanover); she had touched at Gluckstadt, and stopped there twenty hours, at which place cholera raged lately, and carried off five per cent. of the inhabitants. The deceased had not been ashore at Horselydown." Glückstadt is on the Elbe, thirty miles below Hamburgh. The evacuations of the seaman who died at Horselydown would, of course, be thrown overboard, according to universal custom. There might also be other cases of cholera in the shipping from the ports on the River Elbe, lying in the

(a) It was in one of these houses (No. 8,) that the first case of cholera occurred on September 29th.

Thames; but if not fatal, or occurring beyond the metropolitan boundary, we should not hear of them. From what occurred at the pump-well near Golden-square, in 1854, and at many other places in former epidemics, it is evident that the active material contained in the cholera evacuations is not destroyed by being mixed with water. Now, a morbid material, which communicates any disease from one person to another, does so by the faculty of reproduction, which takes place during the so-called period of incubation, the disease which ensues being due, not to the matter first introduced, but to the resulting crop. But no one will deny that everything which multiplies and reproduces its kind must not only be organic, but organized. Even yeast is organized; and small-pox matter consists chiefly of cells. The morbid material of cholera, therefore, is not dissolved in water so long as it retains its properties, but is only distributed; and the amount of water in which it is so distributed ought merely to diminish the chances of its reproducing the disease, but not necessarily to prevent its doing so. Now, anything thrown into the Thames at Horselydown which can float goes backwards and forwards with the tide, ultimately, as a general rule, to reach the sea; but, in the meantime, it may pass up the Lea, or other tributaries, and also up any tidal ditches which communicate with these tributaries. If a sack of poppy-seeds or mustard-seeds were thrown into the river at Horselydown, there is nothing more probable than that a few of them might find their way up the Lea, and the tidal sewer, and into the very pump-well at Abbey-row. I beg the attention of the reader to the following account of what occurred in previous epidemics. It will be remarked, in the meantime, that the first case of cholera at Abbey-row occurred seven days after the death of the seaman on board-ship at Horselydown.

The first case of Asiatic cholera in London in the autumn of 1848, was, according to an inquiry instituted by the then Board of Health, that of a seaman named John Harnold, who had newly arrived from Hamburg, where the disease was prevailing. The date of his death was the 22nd of September, like that of the seaman who died in the present year, and he died also at Horselydown, not, however, on board ship, but in a lodging near the shore. There was a severe case on September 30, in a man who came to lodge in the room in which Harnold died, but this man recovered. The first twelve fatal cases succeeding that of Harnold took place in the following situations. On September 30, a man was attacked in Lower Fore-street, Lambeth, and died on the following day; at the same time that this man was attacked, the first of a series of cases occurred in White Hart-court, Duke-street, Chelsea, near the river. A day or two afterwards there was a case at 3, Harp-court, Fleet-street; the next case occurred on board the hulk Justitia, lying off Woolwich; and the next to this in Lower Fore-street, Lambeth, three doors from where the previous case occurred. It was not till October 5, that a case was registered, as occurring in any other part of London. The inhabitants of Lower Fore-street, Lambeth, as well as those of White Hart-court, Chelsea, had no means of obtaining water in 1848, except by dipping a pail directly into the Thames. The inhabitants of Harp-court, Fleet-street, were in the habit, at that time, of fetching water from St. Bride's pump, which was afterwards closed in consequence of its having been found that the well had a communication with the Fleet-ditch sewer, up which the tide flows from the Thames. When the cholera revived again in 1849, the first case in the sub-district of "Lambeth; Church, 1st part," was in Lower Fore-street; and on the commencement of the epidemic of 1854, the first case of cholera, in any part of Lambeth, and one of the earliest in London, occurred at 52, Upper Fore-street, where the people had no water but what they obtained from the Thames with a pail, as I ascertained by calling at the house.

Since 1854 the persons who drink Thames water, obtained within reach of pollution by the shipping and the London sewers, are diminished to a very small number. The water companies supplied from the Thames now obtain their supplies above the reach of the tide, and the river itself in London is become so foul that people are deterred from drinking it. It is chiefly for these reasons that we may hope that cholera will not at present become epidemic in London.

Sackville-street.

P.S. The river Lea divides near West Ham into several branches, which re-unite into one stream before entering the Thames. What Dr. Elliott and I have called the Lea is that branch of it furthest to the east. It is navigable, when the tide is up, as far as the flour-mill mentioned above. The handle of the pump at Abbey-row was removed on Monday, the 12th instant, and only one death occurred after this day; but the people had already begun to suspect the pump on Sunday, the 11th, and sought water elsewhere.

DROPSY OF THE AMNION.

By GUSTAVUS EVANS,
Physician to the Carlisle Dispensary.

HAVING perused in the *Medical Times and Gazette* of Aug. 2nd, a communication by Mr. Gramshaw, on labour complicated with dropsy of the amnion, I was induced to think that a brief notice of the following case would be interesting and instructive.

According to the best obstetric authorities, dropsy of the amnion is an affection of comparatively rare occurrence, and one which variously modifies the natural course and termination of pregnancy. The following case is the first that I have met with, either in private practice, or during nine months' residence as intern pupil at one of the Dublin lying-in Hospitals.

Mrs. O., aged 37, a strong, healthy, and intelligent woman, mother of seven children. In two previous confinements instruments were employed; the forceps on one occasion and the crotchet on another. When called upon to attend this patient, she was in her seventh month of pregnancy. She stated that soon after she became pregnant she felt great pain and a sensation of fulness at the right side of the womb, and when at her sixth month felt as if she was "at her full time," and that the child was higher in the womb, its movements stronger, more frequent and distressing, than she had ever previously experienced. She was extremely uneasy in her mind about the "unusual way" in which she was affected. Her appetite was impaired, and her sleep disturbed. She was nervously excitable, and entertained unpleasant forebodings of the ultimate issue of her case.

Six weeks preceding her confinement, she complained of unusual distension of the abdomen, a feeling as if she would burst, and a sense of so great a weight, that it was only with much pain and inconvenience she could walk about the house. Whenever she walked she felt most acutely the quick, jerking movements of the child, which were almost constant and exceedingly distressing. She was very feverish, and extremely restless. I recommended her to keep her bed. She occasionally sat up for a short time, but entertained a dread of getting out of bed from the abdominal pain and disturbance of the system which ensued.

During the month preceding her confinement she was entirely prevented from walking, and remained constantly in bed. The abdominal wall appeared remarkably thin, felt greatly distended, with fluctuation distinctly perceptible over its entire surface. There was no œdema of the extremities.

During the last two weeks she was unable to move at all without assistance, and had to be lifted in and out of bed. Her condition was now most distressing, and the general disturbance of the system assumed a much more serious aspect. The question of the propriety of active interference, with a view of inducing premature labour, now strongly forced itself upon me. Having, however, great confidence in the powers of nature to accomplish best her own ends, when not unnecessarily interfered with, and believing that the condition of my patient was, upon the whole, such as would justify me in leaving the case a little longer to the course of nature, I determined not to interfere.

She continued much in the same condition until labour commenced. For several days previously she had suffered much from spurious pains. On an examination per vaginam, the cervix uteri was found considerably expanded, and it was clear that there was a very large quantity of water between the finger and the head, but this did not appear to affect the progress of the first stage. After continuing in the first stage of labour for about six hours, the os uteri being fully dilated, I ruptured the membranes. This was followed by a copious gush of water, and immediately succeeded by a strong pain. For about four hours the uterine expulsive pains

continued moderately strong and regular, the head very slowly advaneing. For about two hours the water continued constantly flowing away. The patient, by occasionally changing her position, caused copious streams to be discharged. Seeing the quantity so great she became quite alarmed, and observed that it was more than at all her previous labours put together.

In course of time I observed that the head made no advance. The pains soon became feeble and irregular, and ere long there were symptoms of exhaustion and distress. I now applied the forceps, but, after much persevering effort, found it quite impossible to advance the head. Symptoms of increasing exhaustion continuing, I was reluctantly compelled to use that life-destroying instrument the perforator—

> Sharp destroyer of the helpless, unborn babe;
> Woman's saviour from a lowly, earth-bound grave.

After reducing the head, and the use of the crotchet, delivery was soon accomplished. It was then about seven hours since the membranes were ruptured.

The placenta was adherent, but no hæmorrhage followed its removal. The patient made a good recovery. The child was a fine healthy girl; the head was large, and the bones highly ossified. During its delivery I had unmistakable evidence of its being alive, by hearing it cry in the passage.

The liquor amnii was not less than five quarts, of a dark yellowish colour, and about the consistence of syrup.

Remarks.—The uncomplicated character of this case of dropsy of the amnion rendered an early diagnosis comparatively easy.

The treatment adopted was the regular exhibition of purgatives and opiates; the latter had to be given very frequently, and in large doses. The termination of the case involving the death of the child, was not, in my judgment, owing to the dropsy of the amnion interfering with the natural course of uterine action during the labour, but entirely due to a want of proportion between the head of the child and the pelvis of the mother.

That old and celebrated obstetric authority, Francis Mauriceau (a) observes:—"The best remedy for this kind of dropsy, the woman being with child, is to wait with patience the hour of her delivery, observing the meantime a drying diet." It is clear, however, that the special circumstances of every such case can alone determine the necessity for inducing premature labour. Dr. Lee (b) observes:—"Labour, indeed, generally in this kind of case comes on prematurely, and sometimes it is necessary to induce it artificially, by letting off the liquor amnii before the term is completed. This should be done in all instances, if the patient's breathing be greatly embarrassed, or her life be brought into any jeopardy; for her safety is not to be put into competition with the preservation of a child, so often, under these circumstances, born either dead or diseased."

Should circumstances in these cases render necessary the induction of premature labour, I suggest that it would be more advantageous to bring it on, not by letting off the liquor amnii in the first place, but the excitation of uterine action by the water douche. Dr. Tyler Smith says, that if a stream of hot or cold water be directed against or, still better, within the os uteri, at intervals of three or four hours, for the space of ten minutes or a quarter of an hour at each application, labour is certainly and speedily brought on. It appears to me to be a matter of considerable practical importance to avoid the sudden evacuation of so large a quantity of fluid as there is in these cases, before uterine action has been induced.

County and City of Cork Medical and Surgical Association.—The first meeting of the session was held at the Royal Cork Institution on Thursday evening, the 16th inst., when the newly elected officers were installed; Dr. R. Corbett, President, Professor O'Connor, Vice-President, Dr. S. H. Hobart, Secretary, and Dr. Gregg, Treasurer. After the address of the President, some pathological specimens were exhibited by Drs. Hobart and Harvey, and an interesting case of subclavian aneurism, which proved fatal some ten days after the operation, was detailed by Dr. Gregg. The morbid preparation was exhibited. An interesting discussion on disease of the heart and arteries followed, and occupied the members till 10 o'clock, when the meeting adjourned.

(a) Page 103, Work on Diseases of Women with Child. 6th ed. 1727.
(b) Lee's Clin. Mid., pp. 94 and 96.

THE LONDON

PRACTICE OF MEDICINE AND SURGERY.

STATISTICAL REPORT OF THE PRINCIPAL OPERATIONS PERFORMED DURING THE SECOND QUARTER OF 1857.

(Continued from page 398.)

The subjoined report includes as usual the following Hospitals:—University College, King's College, St. Bartholomew's, St. George's, Guy's, St. Thomas's, the London, the Middlesex, the Westminster, Charing-cross, St. Mary's, the Metropolitan Free, the Marylebone, the Hospital for Sick Children, and the Dreadnought Seaman's Hospital.

EXCISIONS OF JOINTS.

Case 13.—King's College: Mr. Fergusson.—A girl, aged 14, the subject of diseased elbow-joint from infancy. There was much chronic thickening about the joint and several open sores, but the child's health was still good. Anchylosis already existed. Mr. Fergusson cut out a wedge-shaped mass, which comprised the articular extremities of the three bones. Passive motion was commenced on the fourth day, and the process of healing advanced rapidly. Under treatment.

Case 14.—St. Mary's: Mr. Walton.—A strumous girl, aged 14, the subject from early childhood of chronic swelling of the knee. It had become painful only one month before admission. The tibia was partially dislocated backwards and upwards, and the knee bent at nearly a right angle. A splint was used for nearly a month, but without obtaining any benefit, the joint on the contrary having become more swollen, red, and painful. It was now determined to excise the joint. The horse-shoe incision was adopted, and the patella and the articular ends of the femur and tibia were removed. The joint was found wholly disorganised. All seemed doing well for three days after the operation, when rigors set in, and were soon followed by delirium, jaundice, and extreme prostration. Abscesses formed on the wrists and backs of hands. She died, with all the symptoms of pyæmia, on the tenth day. The wound had united to a considerable extent by first intention. The autopsy did not reveal anything of importance.

Case 15.—University College: Mr. Erichsen.—A man, aged 39, in fair health, the subject of diseased elbow-joint, consequent on a blow three years before. Excision after the usual method on July 8. Doing well.

Case 16.—University College: Mr. Erichsen.—A healthy boy, aged 7, under care on account of diseased elbow-joint, of three months' duration. Excision. Recovery.

Case 17.—King's College: Mr. Partridge.—A strumous-looking Creole, the subject of old-standing disease of the knee-joint. The joint was anchylosed at almost a right angle with the thigh, and he suffered extreme pain in the part. Resection was performed in the usual manner, and the leg put up in the swing splint. Union slowly took place, and he was sent to the seaside for further benefit to his health. Recovered.

Case 18.—King's College: Mr. Partridge.—A boy, aged 13, in fair health. The limb was useless from anchylosis in a bent position, and the part was, moreover, liable to frequent attacks of inflammation. An unsuccessful attempt had been made to straighten the limb under chloroform. In the resection the H-incision was adopted. About an inch of the femur was removed, a portion of the patella, and a thin slice of the tibia. The bones were found firmly anchylosed together. In sawing through the femur a small abscess was opened in its outer condyle which had probably communicated with the joint. The operation was performed on June 13; all went on well, and the wound was almost healed on August 27, the bones being all but firm.

Case 19.—University College: Mr. Erichsen.—A boy, aged 7, the subject of disease of the hip-joint, of nearly three years' duration. The head of the femur was excised on January 7. After the operation the limb was kept in position by a bracket splint. There was profuse discharge, and the boy was very low for some time. Abscesses subsequently

formed, and second removal of carious bone was practised on May 20. Since that he has slowly improved. Under treatment.

Case 20.—King's College: Mr. Fergusson.—A man, aged 34, for sixteen years the subject of stiff knee. The joint was wholly disorganised, and resection was accordingly determined on. The patient did well after the operation, and the splint was taken off at the end of six weeks. The operation was performed on May 2, and the man was discharged well on August 5.

Case 21.—King's College: Mr. Fergusson.—A strumous girl, aged 21, for six months the subject of inflamed elbow-joint. Resection by the single long incision was performed on May 16, and the patient afterwards did very well. She was discharged cured on July 29, having a very useful arm.

Case 22.—King's College: Mr. Fergusson.—A girl, aged 10, had been for several months under treatment, on account of contracted knee. By means of splints the limb had been got almost straight. The joint, however, continued painful, and Mr. Fergusson determined to resect. The operation was performed in the usual manner, and the articular surfaces of the three bones were sawn away. The patient did remarkably well, and when, at the expiration of six weeks, the splint was removed, it was found that firm bony union had taken place. The patient was discharged on August 10, (two months after the operation,) with an excellent limb, the shortening being not more than half an inch.

Case 23.—King's College: Mr. Bowman.—A boy, aged 11, the subject of diseased hip-joint, of twenty months' standing. The femur was not dislocated, but its articular head was partially absorbed. It was resected, and one edge of the acetabulum being carious was gouged. He did well after the operation, and is now nearly recovered, having been able to be about on crutches for some months. The operation was on April 4. His health has greatly improved.

Case 24.—King's College: Mr. Bowman.—A girl, aged 5, for two years the subject of diseased hip-joint. In the resection the acetabulum was found to have had its borders broken down, and to contain soft gelatinous granulations, and pieces of loose bone. The horizontal ramus of the pubes was bare. The head of the femur had lost two-thirds of its substance. The child was placed in the hammock-swing, as designed by Mr. Heath, from the very first, and progressed remarkably well. The wound has now all but healed, and her general health is very good.

TRACHEOTOMY.

Case 1.—Guy's Hospital: Mr. Cock.—A woman, aged 26, was under treatment for syphilitic ulceration of the larynx of two years duration. Urgent symptoms of impending suffocation having developed themselves, tracheotomy was performed by Mr. Baker, one of the dressers. She was much relieved, but death from bronchitis, &c., followed ten days afterwards. The tube had been retained throughout.

Case 2.—St. Thomas's: Mr. Williams, H.S.—A woman, aged 26, under care for what was believed to be syphilitic disease of the larynx. Asphyxia being imminent, the trachea was opened. She recovered well, but still remains under treatment, the tube being still needful.

Case 3.—The Middlesex: Mr. Carver, H.S.—A female infant, aged 2, admitted on account of scald of the mouth and fauces, from drinking from a tea-kettle. Symptoms of laryngeal obstruction induced the performance of the operation, and were relieved by it, but death from exhaustion followed about thirty hours afterwards.

Case 4.—St. Mary's; Mr. Ure.—An infant, aged 13 months, admitted with acute croup. Tracheotomy was performed, but it survived the operation only a few hours.

Case 5.—St. Mary's: Mr. Lane.—A woman, aged 33, the subject of stricture of the œsophagus and much dysphagia. Difficulty of breathing, from pressure on the larynx, at length set in, and having become very distressing, tracheotomy was performed. The operation afforded temporary relief, but death subsequently took place.

Case 6.—Mr. Heath, H.S.—A man, aged 45, was admitted with acute laryngitis. The operation afforded great relief to the respiration, but death took place on the fourth day afterwards.

Case 7.—The London: Mr. Luke.—A boy, aged 14, was admitted in consequence of great dyspnœa following his having been suspended on a crane hook by his neck-handkerchief. The neck had been severely crushed. Tracheotomy was performed, and with immediate relief, but death took place suddenly twenty-eight hours afterwards, with all the symptoms of asphyxia. The autopsy showed that the cartilage of the larynx had been completely broken in.

Case 8.—St. Thomas's: Mr. Williams, H.S.—A girl, aged 17, suffering from acute laryngitis. Death from asphyxia being threatened, tracheotomy was performed. Recovery resulted, and the tube was removed on the eighth day.

LIGATURE OF ARTERIES.

Case 1.—King's College: Mr. Bowman.—A healthy man, aged 36, admitted with double popliteal aneurism in Nov. 1856. Pressure was tried from that date to the time of operation, and without benefit. On April 11 a ligature was placed in the left femoral. Pulsation returned in the aneurism at noon next day. The ligature fell on the seventeenth day, and, excepting the return of the pulsation, all was doing well. On April 30, the wound had all but healed, and on May 2 ligature of the right femoral artery was performed. Pulsation in the aneurism returned the same evening. The right foot mortified. On May 5 hæmorrhage from the left femoral at the seat of ligature took place. Death, with all the symptoms of pyæmia, took place on May 22. At the autopsy the veins were found plugged with lymph, and there were abscesses in the lungs. The right aneurism had burst into the calf.

Case 2.—The London: Mr. Wordsworth.—A man, aged 29, was admitted with a punctured wound just above the left knee on the inner side. Profuse hæmorrhage occurring, the wound was enlarged, and the popliteal artery ligatured above and below. He had an attack of acute rheumatism on the fifth day, and afterwards secondary hæmorrhage took place several times. Death followed on the thirteenth day. At the autopsy no coagula were found in either end of the vessel.

COMPRESSION TREATMENT OF ANEURISM.

Case 1.—Guy's: Mr. Hilton.—A woman, aged 37, in good health, was admitted on June 29, with a left popliteal aneurism, which had existed five weeks. It was the size of half an orange, and of an elongated oval shape; compression treatment by means of the clamp was kept up for five weeks without benefit, the tumour increasing rather than otherwise. The question of applying a ligature was now raised, but it was determined before doing so to try the effect of continuous pressure. Relays of dressers were appointed to sit up with the woman, and to secure the constant adaptation of the instruments. Under this plan the pulsation ceased after two days and nights; and shortly afterwards the woman was discharged well.

Case 2.—King's College: Mr. Bowman.—A healthy man, aged 36, the subject of double popliteal aneurism. That on the left side had existed for seven months before admission, and filled the space between the hamstrings; that on the right was much smaller, and was only discovered after his admission. Compression treatment was tried for both, and was patiently persevered with for five months. No benefit having resulted, ligatures were then applied. Death from pyæmia resulted. (See Case 1, Ligature of Arteries.)

Case 3.—King's College: Mr. Partridge.—A man, aged 56, admitted with a large aneurism of the left popliteal, which had existed for five months. Compression treatment was adopted and in three days all pulsation ceased. The pressure had only been applied for six hours a day. The day after the cessation of the pulsation gangrene of the foot commenced. A considerable part of the leg having become gangrenous, and the gangrene spreading without any tendency to form a line of demarcation, it was determined to amputate. The limb was removed (see Amputations of the Thigh) a fortnight after the commencement of compression. The man recovered well.

RESECTIONS OF PARTS OF THE JAWS.

Case 1.—King's College: Mr. Fergusson.—A robust looking man, of middle age, in whose upper jaw of the left side was a tumour which had been growing for four months. It extended across the mesial line in the palate, and also involved the malar bone of the same side. The whole of the maxilla and part of the malar were resected after the usual manner. The man recovered quickly, and was discharged six weeks afterwards.

Case 2.—King's College: Mr. Fergusson.—A healthy looking woman, aged 23. Six years before, a tumour had begun to form in the right lower jaw, which had been removed, together with part of the bone, by Mr. Pettigrew. The disease soon recurred, and had now grown to a large size, involving the angle and ramus. Mr. Fergusson resected the whole from the first molar teeth to the articulation. The bleeding at the time was very free, and it returned in the evening. Death from collapse followed the next day. The disease proved to be myeloid in structure.

(To be continued.)

HOSPITAL NOTES.

EXCISION OF THE ELBOW-JOINT EIGHTEEN YEARS AGO.

Some of the most instructive cases we meet with in the Hospitals are those in which patients who have had operations performed long ago again present themselves. The other day Mr. Cock operated again upon a man whose elbow had been excised eighteen years ago by the late Mr. Key, on account of strumous disease. The man, who is now aged 45, and in good health, stated that he had enjoyed throughout the whole interval and until quite lately very excellent use of the limb. He had been employed as a letter-sorter. The motion had never been free, and latterly he had been attempting to work with it in a new position, and one which gave pain. As the result of this an abscess had formed, and there was now evidence of the existence of diseased bone. Mr. Cock removed some small necrosed fragments from the end of the humerus, and cut away others with the bone forceps. There is every prospect that the part will heal soundly, and that the triumph of conservative surgery will thus be further prolonged.

ERECTILE, DEEPLY-PLACED NÆVI—DIFFICULTY OF DIAGNOSIS.

Among the less frequent of the forms of congenital nævus are those which consist of venous or erectile tissue only. A good example of these latter was lately under observation in one of Mr. Cock's wards in Guy's. A healthy boy, aged 5, was admitted with a soft swelling in front of the right shoulder, which had painlessly increased, and was now of the size of a large egg. The skin was not in the least discoloured, nor was it adherent. Fluctuation was so deceptively present, that Mr. Cock was induced to puncture with a grooved needle, in the suspicion that the swelling must be either an enlarged bursa or a chronic abscess. Only venous blood flowed, but the stream of it was pretty free while the needle remained. It ceased immediately after the withdrawal of the needle, but the tumour was noticed to rapidly swell up to twice its former dimensions, and in this state the integument acquired a slightly bluish tinge. Its character had now become apparent, and a week or two after this exploration Mr. Cock excised the tumour. It consisted of a mass of erectile tissue, having no capsule, and passing under the border of the deltoid till it came in contact with the capsule of the joint. Its tissue did not contain any true vessels. The bleeding, which was pretty free, was controlled by the application of perchloride of iron. The wound healed well. In these cases there is very often no history of their having existed at birth, since, being deeply placed, they have escaped notice. This circumstance combines with the perfect soundness of the overlying skin to make their diagnosis a matter of much difficulty. Sometimes they appear at a certain age to take on quite an active growth. Not long ago we mentioned a case in which Mr. Critchett extirpated an eyeball which had been extruded by one of these growths, of course removing also the tumour itself. The patient was a boy of 7.

DISLOCATION OF THE HUMERUS INTO THE AXILLA, OCCURRING WHILE SWIMMING.

John Mowlan, mate of a ship lying in the West India Docks, came to the Poplar Hospital, October 14, 1857, complaining of cramp in his arm. He stated that having jumped off a plank two feet from the surface into the water, which he entered feet first, he immediately began swimming, and had struck out three or four times, when he felt his right arm suddenly give way, become painful and motionless, and that he would then have been drowned, had it not been for a piece of timber which he seized with his other hand. On examination of the arm, Mr. Brownfield, the House-Surgeon, found that he was suffering from a dislocation of the humerus into the axilla, which was immediately reduced. He was in good health, muscular, 38 years of age, and had never been the subject of dislocation before.

Mr. Brownfield has sent us the above note of this interesting case for publication. It would be instructive to know if others have met with the occurrence of the dislocation under similar circumstances.

HEPATIC ENLARGEMENT WITH PECULIAR SYMPTOMS.

Among several cases of unusual interest under Dr. Risdon Bennett's care in St. Thomas's at present, there is one in which the diagnosis as to the real nature of an enlargement in the hepatic region has been very difficult. The patient is an Italian of middle age, and cachectic aspect. When admitted about three weeks ago, he complained of pain and fulness in the right hypochondrium, and stated that his symptoms had only commenced about a week ago. There was no jaundice, and the bowels, instead of being constipated, were then and have continued since too freely relaxed. During the next week, the fulness very rapidly increased, and extended downwards to nearly the level of the umbilicus, whilst there were also indications of the diaphragm being pushed upwards. A fortnight ago, Dr. Barker saw the case in consultation with Dr. Bennett, the question was discussed as to whether the tumour were most probably inflammatory or malignant. If malignant, its increase had been most unusually rapid, even allowing for much inaccuracy in the man's statements. It was decided to continue the treatment which had been begun, by small doses of mercury and counter-irritation. Since then, there have been signs of dry pleurisy on the same side, but the tumour has rather subsided than otherwise. It is just possible that it may prove to be an hydatid cyst, its increase and acute symptoms having been due to inflammation recently set up around it. The case is well worth the attention of any who may have an opportunity of examining it.

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Medical Times & Gazette.

SATURDAY, OCTOBER 24.

POISONING BY TARTAR EMETIC.

The facts that Tartar Emetic is in common use as a medicine, that it is tasteless when given in small quantities and in common articles of food, that its effects resemble those of natural disease, that large doses of it are sometimes given not only without ill consequences but with benefit to the sick, and that it is not usually regarded as a dangerous poison:—all these circumstances appear to offer an immunity to the murderer in accomplishing the secret destruction of life. If we examine the works of some of our most eminent authorities in Medical Jurisprudence and Toxicology, even of a very recent date, we shall find very little mention made of the poisonous effects of the preparations of antimony; and although in such works we find recorded the chemical reactions produced by these drugs, and the effects observed in their administration to dogs

and others of the lower animals, yet instances of fatal poisoning are admitted to be extremely rare, and to be occasioned only by large doses. Dr. Christison says—"Poisoning with antimonial preparations is not very common;" and, again, "Cases in which tartar emetic has been taken to the requisite extent by man are rarely to be met with; and it has seldom remained long enough in the stomach to act deleteriously."—(Treatise on Poisons, Third Edition.) Dr. Beck, in his Elements of Medical Jurisprudence, Sixth Edition, says that tartar-emetic "*in large doses* must undoubtedly be esteemed a poison. It is, however, far from being as certainly destructive as arsenic or corrosive sublimate;" and he gives only one fatal case, quoted from Orfila's Toxicology. Even Dr. Taylor, in his Treatise on Poisons, published in 1848, says, "This substance (tartar-emetic) is by no means so poisonous as it is often described to be;" and he then shows that large quantities have occasionally been taken without injurious effects. He thinks, however, that in doses of *half an ounce to an ounce*, or even less, it must be regarded as an irritant poison; and he suggests that one reason why the symptoms are often so slight from comparatively large doses is the fact of its possessing such violent emetic properties.

But the refinements in crime of the present day have shown to us that large doses of this drug are not necessary to cause death, and that this result may be attained by its continuous administration in small quantities. It is, however, gratifying to know that the refinements in modern Chemistry also have kept pace with, or rather have overstepped the machinations of crime, and that the tissues of the dead body often reveal, in signs not to be mistaken, the evidence of murder. This latter result was evidently not contemplated by the secret and cowardly assassin, who would no doubt cherish the delusion that, from the peculiar nature of the poison, it would be thrown off from the system, and that all traces of its existence would thereby be lost.

Some cases having lately occurred of death by the criminal administration of tartar emetic, we think it incumbent upon us to offer some observations upon this novel mode of poisoning, more especially as the subject involves many difficult points, owing to the common administration of this drug in the practice of Medicine.

It will be remembered that the examination of the body of John Parsons Cook, who was poisoned by strychnia administered by William Palmer, proved the existence of antimony in the tissues, but not of strychnia, although the effects of the latter poison were sufficiently evident by the symptoms during life. As no antimony was prescribed for Cook during his life, and as he was known to suffer from symptoms precisely resembling those likely to result from tartar-emetic, these facts, coupled with the discovery of the presence of antimony in the tissues after death, gave rise to the conclusion that tartar emetic was secretly administered to him; and it is further supposed, that as this drug was not sufficiently powerful to destroy life, strychnia was subsequently used with more effect. The death of Cook, and the circumstances which transpired upon the investigation into that event, led to the suspicion that others of Palmer's relatives and friends had been subjected to the same kind of treatment and with the same result, and therefore the body of Palmer's wife was exhumed fifteen months after death. In her body the antimony was distinctly found in substance in various parts of the intestinal canal, over which the mineral, like arsenic, appears to exercise a preservative influence; and it was found, moreover, that antimony existed in the other organs and tissues examined, and even in the blood. It was distinctly proved that no antimony had been prescribed for her during life, and that her symptoms resembled those which are caused by tartar-emetic. A verdict of wilful murder was returned by the Coroner's jury against Palmer, and he would have been tried upon this indictment if he had not been found guilty in the case of Cook. In June, 1856, a man named Daniel M'Mullen died from the effects of repeated doses of tartar-emetic, administered by his wife. In his case antimony was found in several organs of the body and in the urine. The woman was found guilty, and was transported for life. Still more recently, at the beginning of the present year, a man named Hardman administered tartar emetic in repeated doses to his wife, who died with the symptoms of poisoning. Antimony was found in several of the organs of the body, but only to a small amount. The man was tried for the murder last August, was found guilty, and was executed, and before his execution he admitted the justice of his sentence, thus putting the fact of the poisonous properties of antimony beyond all doubt, as well as the circumstance of its criminal administration.

Such, then, being the facts, and as a new method of poisoning has now been attempted, it becomes important for the Medical practitioner to be aware of the tests by which the presence of antimony may be ascertained, as well as to be acquainted with the fallacies which are likely to surround him in his search after truth.

The whole subject has been treated in a very comprehensive manner by Dr. Alfred Taylor, in an article which has just appeared on "Poisoning by Tartarized Antimony," in the Guy's Hospital Reports. He there shows that the continued administration of this salt in small doses gives rise to serious illness and eventual death, as is proved by the history of the cases to which we have alluded; and he quotes the experiments made respectively by Dr. Mayerhofer of Munich, Dr. Wetzler of Augsburg, and Dr. Jankowich of Ofen, upon themselves, in proof of the poisonous nature of tartar-emetic. Each of these Physicians continued to take small doses of the salt until such serious symptoms supervened as to compel them to discontinue their experiments.

The poison may exist in the body in the free and in the absorbed state: in the former case it lies upon the stomach or intestines, or in the fluids which they contain; in the latter case it is incorporated into the organs and tissues of the body. It is not at all unusual to find no antimony, or scarcely any, in the contents of the stomach, although the patient has died from the administration of antimony; for this substance passes rapidly out of the stomach and bowels, and no trace may be left in those cavities. But by the application of Reinsch's test to the urine, and to fluids obtained by boiling portions of the different organs, distinct traces of metallic antimony may be obtained. The process of Reinsch, which demonstrates so satisfactorily the existence of antimony (and, it may be added, of arsenic also), was employed only so lately as the year 1846, but has been much improved since that date.

It is thus certain that tartar-emetic has been used for the purpose of criminally destroying life; and there can be no doubt that it would have been extensively employed for the purpose of secret assassination, if the powers of chemistry had not succeeded in tracing the poison in the body even to the minutest portions. It has been suggested that the poison employed by the infamous Marchioness of Brinvilliers may have been tartar-emetic; and it is at least proved that she was acquainted with the properties of antimony. The administration of large doses of tartar-emetic in the treatment of some diseases, especially of inflammation of the lungs, has been quoted in support of the improbability of this substance being used as a poison; but in the cases in which the drug has been so employed, the persons have been in a diseased, not in a healthy state; and it is, moreover, doubtful whether those large doses which are said to have been employed, have been really beneficial or injurious.

It is clear that the discovery of antimony in the system after death does not prove that it was administered with a murderous intention, for it may have been given as a medicine; and, on the other hand, the non-discovery of antimony in the stomach does not prove that it has *not* been given as a poison, as it may have passed away from the stomach. Again, the quantity discovered in the tissues may be very minute, and yet the person may have been poisoned; for antimony is eliminated in various modes from the system.

Such are a few of the leading circumstances connected with the history and detection of antimonial poisoning; but the subject is one of so much importance as to deserve the careful investigation of the Profession.

THE WEEK.

We have repeatedly insisted on the necessity of guarding against the importation of cholera from Hamburg, and of establishing something like a quarantine of observation upon vessels arriving in this country from infected ports, so that at least no case of actual cholera should be admitted to unrestricted communication with our population. The usual cry of difficulty and impediments to commerce is raised by those who know nothing of the subject of quarantine. No precautions of the kind are taken, and the cholera is imported, just as it has been imported before. The following case, from the weekly returns of the Registrar-General, is a case in point:—

"At Horselydown, on board the Lütcken, on the 22nd of September, a seaman, aged 27 years, 'cholera Asiatica (19 hours).' Mr. Platt, the registrar, says, 'The ship Lütcken arrived at Horselydown, St. John's, on the afternoon of the 21st inst., from Harburg (Hanover). She had touched at Gluckstadt, and stopped there twenty hours, at which place cholera raged lately, and carried off 5 per cent. of the inhabitants. Deceased had not been ashore at Horselydown.'"

Dr. Snow's remarks upon this case so shortly preceding the outbreak at West Ham, will be read with interest, though we are far from wishing to regard it as more than a coincidence. Mr. Beale, the registrar of West Ham, states, "The cattle from Hamburg pass in great numbers along Abbey-row in their way to the Marsh, immediately on their arrival from the Eastern Counties Railway; and complaints are made of the odour arising from the cattle in passing." The Registrar-General says:—

"An immense commerce is carried on between England and Hamburg, on the Elbe, in vessels which are in a very unsatisfactory sanitary condition, the berths of the steamers conveying passengers being at times saturated by the steam of water-closets. The condition of the ordinary vessels may be easily imagined. To avoid the delays of quarantine all steamers should undergo sanitary inspection, and the sailing vessels in the river should be thoroughly cleansed. They should get pure water, and they would not then form a bridge over which epidemics can march from Hamburg to London."

We would insist as strongly as any one on the importance of cleansing vessels, but the system of sanitary inspection which could enforce effectual cleansing would be very extensive indeed, and require a long time for organisation. In the meantime cholera patients may come over, and quite enough evidence has been collected to show that this is a danger which ought to be guarded against as far as possible. We believe, therefore, that a short quarantine of observation upon all vessels arriving from Hamburg and other infected ports should be enforced immediately. It might cause some temporary inconvenience and commercial loss, and after all be unsuccessful. It is late to take the precaution now that the disease is here, but the outbreak may, possibly, be circumscribed; and it is better to err by excess of precaution, than by obstinate and wilful neglect of one source of danger.

With cholera threatening us, it is not too much to demand that the water of all the companies supplying the Metropolis should be analyzed weekly. Dr. Odling has examined the Thames water taken from mid-stream at Greenwich on the 28th September, and finds 173 grains of impurity in the imperial gallon at high water, and 48 grains at low water. A large proportion of this impurity was mineral matter, the quantity of organic matter being ten grains and a half at high water, and four grains and a half at low water. The Registrar-General says, "Dr. R. D. Thomson has repeated his analysis of the water supplied by the Southwark Company. On the 14th of October a gallon of it contained only 17·6 grains of extraneous matter. On the 15th of October the total impurity in the pump-well of Abbey-row, West Ham, amounted to 56·16 grains in a gallon, comprising 4·40 grains of organic matter."

Dr. Routh brought an important subject before the Medical Society of London last Saturday, in a very able paper, "The mortality of infants in Foundling institutions, etc., from the absence of breast milk." The author had studied the matter thoroughly, and brought forward a number of statistical returns to show that the mortality of infants is not half in the country what it is in town and Foundling institutions. Overcrowding and absence of breast milk were regarded as the chief causes of the excessive mortality and the practical conclusion was, that Foundling institutions in large towns should be abolished, and children sent out to wet-nurse in the country.

No sooner had an intimation of the return of cholera here appeared last week than two of our Correspondents were on the spot investigating the origin of the disease, and the duration of the premonitory diarrhœa. The results of these investigations will be found in other columns of this number. Dr. Snow's researches show the extreme importance of guarding most carefully against the impregnation with fæcal matter of water used for drinking. There are very many pump-wells in which the water is poisoned by percolation from adjoining privies. Those who differ most widely from Dr. Snow in his views as to the transmission of the cholera poison, must admit most fully the great services he has rendered by proving the close relations between the extension of the disease and the use of impure water. Dr. Macloughlin's belief in the invariable occurrence of premonitory diarrhœa before cholera sets in appears to be strengthened by the cases at West-Ham, though the period between the first liquid evacuation and the commencement of cramps and vomiting was in some of them very short. The question naturally arises,—Is this diarrhœa of an hour or two premonitory diarrhœa, or the first stage of cholera? But this question sinks into insignificance before the more important inquiry, if there be invariably a period between the first liquid evacuation and the occurrence of cramps and vomiting in which Medical treatment can cut short the disease. This is the really important point to which Dr. Macloughlin's laborious inquiries tend; and no one will deny him credit for the industry and perseverance with which he has followed up the investigation.

As Mr. Delves has taken legal measures with the object of punishing what he believes to be a conspiracy to injure his character, we can only recur to the charge of procuring abortion made against him so far as to state that the magistrates dismissed the charge at the adjourned sitting. Sir Charles Locock was one of the magistrates present. A report of the Medical evidence will be found in another column; and we may call attention to the very remarkable statements attributed to Dr. Lever, observing that the girl considerably altered her previous statements by swearing that he "something"

did not come away at the time of the alleged operation, but on the next day.

In our number of the 10th instant we gave a short statement of the claims of Dr. Acland to the Regius Professorship of Medicine at the University of Oxford, and we are now happy to be able to announce that he has received the appointment. The Clinical Professorship, also vacant by the death of Dr. Ogle, has to be filled up next Tuesday. The candidates are Dr. Acland and Dr. Jackson. Dr. Jackson has not yet had much opportunity of distinguishing himself, but his friends think that he would make a good clinical teacher, and say that the duties of Clinical Professor are quite enough for the energies of any one man. The supporters of Dr. Acland insist with equal warmth upon the importance of enabling the Professor of Medicine to illustrate his teaching at the bedside. They assert that there is no room in Oxford for two teachers of practical medicine, and reiterate his manifold claims to the confidence of the Profession. Where so much can be said on both sides, and conflicting interests are brought into play, the result is of course doubtful.

The very interesting meeting at Birmingham to institute a National Association for the Promotion of Social Science has been a great success. Lord Brougham came out with a vigour quite juvenile; and Sir Benjamin Brodie, acting as President of the Section of Social Economy, proved by his address that we number among our members those who are fully competent to handle the most profound questions of State philosophy. The Section of Public Health, perhaps, wa that which was regarded with the most general interest. We gave the concluding portion of the address of the President, Lord Stanley, last week. Several papers were read in this Section by Medical men. Mr. Michael, "On the Influence of Habitation on the Community;" Dr. M'William, "On the Health of the Officers of Customs;" and Mr. Rumsey, "On the Deficiencies of Sanitary Legislation and Administration," were among the most prominent. In other Sections considerable interest was excited by Mr. Acton's paper on "Prostitution," and Dr. E. Smith's "Prison Dietaries" and "Prison Punishments." As the proceedings of the Association are to appear in an official and permanent form we must defer any further notice of the papers; but cannot refrain from a word of congratulation on the prominent part taken by our profession in the formation of what must prove to be a most important Association.

By two new decrees the College of France will undergo a considerable diminution of its present privileges. At present, the professors have the absolute power of determining the order, succession, and direction of the various courses of lectures; of electing new professors and assistant professors on the occurrence of vacancies, and of disposing of the suites of apartments that may become vacant. Attendance upon the lectures is not obligatory, the audience consisting of persons who are attracted by the love of science and letters, and by the great names of some of the professors. No certificates of attendance or diplomas are delivered. One of the decrees orders that in future all shall be under the control and direction of the Minister of Public Instruction, who shall have the power of making and cancelling appointments: and it declares that in future the appointments to the posts of assistant are to be made annually, and are to be held out as incentives for the struggling sons of science. The same assistant professors may however be reappointed if the Minister think fit. The professorships are permanent: but by the other decree, after twenty years' service, or on the occurrence of illness, the professor may demand an assistant, who is to be paid from a portion of his own salary—the professor holding the post of honorary professor, and on his final retirement receiving a pension.

In the matter of statues of their great men the French proceed with far greater expedition than is our habit. It was but the otherday, that at the instigation of Dr. Magne, a subscription was organized for the raising a statue to Geoffrey St. Hilaire at his native place, Etampes. The suggestion was quickly responded to, and on the 11th of October a fine statue, from the *atelier* of M. Elias Robert, himself a native of the same place, was inaugurated. M. Lévy, president of the Academy of Medicine, delivered the great speech of the day, and was followed by MM. Serres, Duménil, Milne-Edwards, Moquin-Tandon, and other celebrated men of science.

REVIEWS.

Prone and Postural Respiration in Drowning, and other forms of Apnœa or Suspended Respiration. By MARSHALL HALL, M.D., F.R.S. of the Institute of France. Edited by his Son, MARSHALL HALL, Esq. Pp. 216. London: 1857.

Dr. Marshall Hall had just finished the work now before us, and was proposing to himself to resume the discussion of several questions which he had still left unanswered, when death cut short his career. It is a noble object to contemplate this great Medical philosopher, while struggling with the mortal malady which was soon to terminate his own life, exercising himself in a series of experiments and investigations, having for their object the restoration of life in others. The problems which he seems to have proposed for solution in this his last production are the period during which the powers of life may be suspended without being annihilated, and the conditions under which the vital powers may be restored. The first problem he has left unanswered; the second he felt confident that he had satisfactorily solved, and the evidence of numerous witnesses appears to corroborate his own conviction. As a specimen of the self-questioning spirit of Dr. Marshall Hall during his late inquiries, we cannot perhaps do better than quote his own words in the Preface:—

"I am unwilling entirely to discard the evidence given by so many who have treated apnœa, of *recovery* after a very long immersion. And I have endeavoured to imagine an event possible which has been rejected because it has appeared impossible. What takes place when all respiration and all circulation have apparently ceased? For from such a state, in new-born infants especially, the patient *has* recovered. Is there a low state of *chemical* change still persistent under the influence of apnœa and cold, from which even the adult may be restored under the genial influence of a stream of atmospheric air into the pulmonary air-cells, and on the general surface of the body? The damp hay-stack smoulders until some occasion occurs of its low combustion being roused into spark and flame. And a *capillary* circulation and its blood-changes *may* continue, when the heart has already ceased to contract, which may render such restoration to life not impossible. A frog, in which, from the exclusion of oxygen, the cutaneous circulation has ceased, if observed under the microscope, has been known to become *spontaneously* restored on exposure to the atmospheric air. . . . An investigation is opened to us full of promise and life, even in cases of extremely *long duration* and unavailing *protracted treatment*. We must cease to be sceptical. Still-born infants have been restored after a considerable lapse of time."

These sentences contain the germ of many profound reflections, which may in the progress of time bring forth much useful fruit. In the meantime, it may be remarked that persons in a state of asphyxia, or rather apnœa, from drowning, are in a very different condition from still-born infants. In the former the respiration is suspended, in the latter it has not yet commenced, at least in the ordinary sense. The intra-uterine respiration through the medium of the placenta, by a being immersed in a circumambient fluid, is a very different process from respiration in the atmospheric air. It can therefore readily be conceived that in the first case the period before respiration commences may be prolonged to a much

greater extent than the space of time during which aërial respiration can be safely suspended in a person asphyxiated from drowning. Dr. Hall is evidently struck with this difficulty in reconciling the physiological details of these two states, and some of the cases of restoration of drowned persons which he records represent so great a space of time to have elapsed in the state of apnœa as to call from him the suggestion, that in some of the cases the patients were in a state of syncope from the shock, rather than of apnœa. In one of the cases inserted in Dr. Hall's work, we have strong doubts as to the existence of true apnœa, for the woman was only a very short time in the water, and the water, moreover, was only deep enough to reach her knees. In another case, where the patient is said to have been in the water *fifteen or twenty minutes*, and where the ordinary means of resuscitation had failed, the relator expresses a confident opinion (in which we cannot say that we share) that the boy might have been rescued if the "Ready Method" had been employed.

Putting out of consideration the condition of the capillary circulation, the respiration and the innervation of persons in a state of apnœa, points on which, as we have just remarked, Dr. Marshall Hall offers no positive opinion, we pass to the experiments and the practical deductions drawn by him in the course of his researches upon the best means of restoring persons who have been asphyxiated. We should explain that Dr. Hall draws a distinction between *apnœa*, or the state in which perceptible respiration is suspended, and *asphyxia*, in which the action of the heart is arrested; and he regards the last as the stage succeeding to apnœa, and as being necessarily incurable.

The chief object of the present work is to show that the methods of treatment hitherto adopted in apnœa are founded in error, and likely to be more injurious than beneficial; while the new method, founded upon a true theory, and based upon conclusive experiments, must be necessarily successful if the prescribed conditions are fulfilled.

In the first place, the supine position in which the patient is usually laid under the methods hitherto adopted, is regarded by Dr. Hall as positively injurious, and calculated to render nugatory every attempt at inducing respiration, because the tongue may fall backwards, carrying with it the epiglottis, and thus close the entrance into the trachea and air-passages; while fluids already in the mouth and fauces, or regurgitated from the stomach, may not only obstruct the air-passages, but may be forced or drawn into the windpipe, and so add a *new* source of apnœa. The proper plan, therefore, is to place the patient in the *prone* position, in which the tongue falls forward, drawing with it the epiglottis, and leaving the glottis open, while all fluids will drain away from the fauces and mouth. In order to prevent the mouth from touching the ground or the table, the wrist of the patient should be drawn upwards and placed under the forehead. Pressure being now made upon the spine, expiration is accomplished, and when the pressure is removed, slight inspiration will follow. The weight of the body is then to be removed from the thorax and abdomen, by gently turning it on the side and a little beyond, by which inspiration is produced. By this means the carbonic acid, which is acting as a poison to the lungs, is eliminated, and oxygen from the atmosphere is introduced. Another common error denounced by Dr. Hall is the indiscriminate use of the warm-bath, which, employed too early, may and often does, he says, destroy the patient. It is found, in fact, as the result of experiments, particularly of those by Milne-Edwards and Brown-Séquard, that life is more protracted in the case of suspended respiration at cool temperatures, than at more elevated temperatures. While, however, condemning the general use of the warm-bath, and its too early employment, Dr. Hall thinks that when respiration has been restored, this agent may be of great service; and while denouncing the *continuous* warm-bath as useless or injurious, he thinks that a sudden and temporary immersion in a warm-bath might act as a stimulus to the inspiration in cases of apnœa. Alternate dashing of hot and cold water on the face and chest may also act in the same manner. Reflex action should also be excited by irritating the nostrils by snuff and hartshorn; and by irritating the fauces by a feather. Galvanism may also be applied along the phrenic nerve, and through the diaphragm and intercostal muscles; and the inhalation of oxygen and of dilute pure ammonia is to be induced. Ammonia is a remedy from which much benefit may be expected; for, according to Dr. Hall, it neutralizes the carbonic acid with which the blood is overcharged, and produces carbonate of ammonia, which is free from any deleterious property.

We have thus endeavoured to give an abstract of Dr. Marshall Hall's views upon this very important subject, and we regret that our limits prevent us from entering at length into the application of these principles to cases of drowning, to the apnœa of new-born infants, and to other kinds of suspended animation. In the cases of death from chloroform, in which Dr. Hall's method has been unsuccessfully employed, the failure is attributed to the fact that in this species of death, the condition is not apnœa, but really asphyxia, the action of the heart being suspended in the first instance.

Many cases are recorded by correspondents of Dr. Hall, in which still-born children have been brought to life by the "Ready Method;" but while admitting the striking character of many of the recoveries, we cannot refrain from remarking that resuscitation of new still-born children is by no means an infrequent occurrence, and has been accomplished both by practitioners and by nurses from time immemorial. The only question is, whether the promulgation of Dr. Hall's views will save *more* still-born children than heretofore.

We cannot leave Dr. Hall's book without expressing the pleasure and instruction we have derived from its perusal, and our admiration at the philosophic tone which prevades it.

A System of Practical Surgery. By William Fergusson, F.R.S. Fourth edition. 8vo. London: 1857.

Mr. Fergusson's Practical Surgery is so well known to the profession, that it is scarcely necessary to do more than mention the fact that a fourth edition has just been published. There are, however, some improvements and additions to which we are glad to call attention.

In each of the former editions the author had devoted no small portion of his pages to the consideration of the anatomy of the various regions. This rough sketch of Surgical Anatomy has been omitted in the present edition; and we think Mr. Fergusson has acted wisely, seeing that there are so many excellent anatomical works.

Many pages of new matter, and several woodcuts, illustrating surgical affections and deformities, have been added; and the most important points in connexion with the advancing surgery of the day are candidly and ably discussed.

The question of the treatment of certain incurable diseases of the knee by excision of the joint is perhaps one of the most important of the present period. The author has had a large experience of the operation, and he discusses the matter in an able manner and fair spirit. He is not ashamed to tell us, that it was in spite of "early prejudices" that he ventured upon reviving the exploded operation in 1850, and that he is now a most determined advocate of this plan of treatment. Whilst reviewing the objection that so long a time is necessary for the recovery of the patient after excision, he says,—

"I have had a patient on crutches within six weeks after resection; I have rarely seen one about at an earlier period after amputation; and I have seen one walking firmly and nimbly within twelve months after resection, in a style far superior to that which an unfortunate might display with an artificial limb."—P. 457.

With reference to amputation of the foot at the ankle-joint, Mr. Fergusson tells us he has found reason to modify his former opinions, which were given in favour of this proceeding. After the experience of many cases he has found that the stump could not be made useful after it had entirely healed up. We should be sorry to see this operation entirely discarded, and perhaps very great care in selecting proper cases for the proceeding may be followed by better results than appear to have occurred in the practice of the author and other surgeons.

His extended experience of operations on the jaws leads the author to speak still more highly than before of the method of operating for removing the superior maxilla by the single incision through the upper lip into the nostril. Those who have been able to compare the little deformity subsequent on this method, with that remaining after the huge gashes employed by the majority of surgeons, and by the author himself a few years ago, will readily bear testimony to the superiority of Mr. Fergusson's present mode of practice.

With respect to the subject of treating stone in the female bladder, the author says,

"With the modern advantages of chloroform, and a more perfect manipulation with the lithotritic apparatus, I should now rarely think of any other operation for stone in the female than lithotrity."—P. 798.

We need hardly say how heartily we recommend this work to every Surgeon. Mr. Fergusson is one of those who is not content with the knowledge of bygone days. His name is connected with some of the most signal improvements in practical surgery, and those who are endeavouring to keep up to the high standard of the present day should acquaint themselves with the precepts and practice inculcated by the author in this excellent work.

FOREIGN CORRESPONDENCE.

FRANCE.

[From our Paris Correspondent.]

PARIS, 11 October, 1857.

THE great event of the past week is the discussion at the Academy of Medicine upon the treatment of the malignant pustule. Professor Nélaton announced that one of his former pupils, M. Raphaël, had treated with success four cases of this dreadful disease. A few years ago a M. Pomayrol, who practises medicine at Perpignan, made known that the simple application of walnut-leaves on the malignant pustule was sufficient to cure it, and had proved successful in forty cases. M. Raphaël, in a letter to Professor Nélaton, says he previously did not believe in the wonderful influence of these leaves; but, that having been called to see a patient, whose whole face was swollen in consequence of malignant pustules on the eyelid and the cheek, on one side, he thought it was too late to apply the actual cautery, and he resolved to try the walnut-leaves. The next day he found the patient much better, and in a few days the cure was complete. In three other cases he has had the same success. Professor Nélaton expresses much confidence in the learning and the veracity of M. Raphaël, and he states that this physician resides in a country town in a part of France where the malignant pustule is frequent, and that therefore M. R. is accustomed to see cases of this affection, and can hardly have made a mistake concerning the diagnosis. It has been objected that M. R. has met with one of those cases of malignant pustules which are cured either spontaneously, as M. Bourgeois has recorded one, or which may be cured by a simple crucial incision, as the one mentioned by M. Van Swaggenhoven. But, says Professor N., in admitting the possibility of such cases, can anyone imagine that four times out of four cases the same thing will occur?

M. Robert objects that the symptoms mentioned by M. Raphaël are not exactly those of malignant pustule. He points out, besides the well-known characters of this inoculated affection, the existence of an inflammation of all the lymphatic vessels in communication with the part where the pustule exists. In the first case of M. Raphaël there is no mention of this symptom, or of some others which are more generally known. He says that, whatever may be said of the importance of the application of the walnut-leaves, he would not hesitate to apply the actual cautery, which is not painful, and is a specific remedy, when used early and energetically enough.

Professor Nélaton answers, that among the physical characters mentioned by M. Robert some, and particularly the central eschar, are not essential. When the malignant pustule is on the eyelids, this eschar does not exist. He adds, that if he had a case of malignant pustule, he would at first apply the walnut-leaves, and if after five or six hours there was any progress of the disease, he would then apply the actual cautery.

M. Renault says that the absorption of the virus is so rapid, that it would not be prudent to wait; and that Physicians who would like to try the walnut-leaves should apply the actual cautery before making use of these leaves.

M. Ricord's new views on Chancres and Syphilis.—These views have just been published in a work of a pupil of M. Ricord. (Leçons sur le Chancre, professées par M. le Dr. Ricord, publiées par M. A. Fournier.) The learned Professor of Syphilography still thinks that every syphilis begins by a chancre; but he has given up the doctrine he so long held, that there is but one kind of chancre. He now admits two very distinct chancrous ulcers, both inoculable, and essentially contagious: one of which is the soft, or local chancre, able to produce a suppurative bubo, but absolutely unable to generate constitutional syphilis; while the other, the indurated chancre, from which originates the painless and not suppurative bubo, is essentially the infecting chancre, which alone generates constitutional syphilis. The indurated or infecting chancre may exist everywhere, that is, on the whole surface of the body, including that of the head, while the soft chancre never exists on the head. Messrs. Puche and Cullerier, colleagues of M. Ricord at the Syphilitic Hospital of Paris, have also remarked that the soft chancre is never observed on the head.

M. Ricord thinks that each kind of chancre generates only its own kind when it passes from one person to another, except in a peculiar circumstance of which we will speak hereafter. He affirms that the induration of a chancre never appears before the third day, and never after the third week. If a chancre is to be indurated, it therefore acquires quickly this character; and it is wrong to consider induration as one of the modes of termination of a syphilitic ulcer. Some Physicians have thought that phagædenism was a sign of immunity against constitutional syphilis. M. Ricord affirms that this is a very great error. According to him phagædenism is only an accident, a complication of chancres, and it may exist with one or the other of the two kinds of this ulcer. The cause of the mistake made concerning the immunity of phagædenic chancres is, that the soft chancres present this character much more often than the indurated ones. A mode of treatment of phagædenism has lately proved so successful in the Syphilitic Hospital that it may be considered as specific. It consists in dressing the ulcer with a solution of tartrate of iron and potash, while the patient takes iron.

M. Ricord still teaches that constitutional syphilis cannot be doubled, that is, that a man cannot have twice an indurated chancre, and that when once a constitutional syphilis exists another cannot be taken. If a man with constitutional syphilis be exposed to contagion of chancrous pus, or inoculated with it, almost always will there be chancre formed; or if there is one, in both these cases it always is, according to M. Ricord, a soft one, and the pathognomonic indolent bubo does not appear. Newly-observed facts lead this Physician to think that a soft chancre in a man attacked with constitutional syphilis may communicate an indurated chancre to another person, and he imagines that in this case the soft chancre had been given by pus from an indurated one.

A few years ago M. Bassereau tried to prove that the two kinds of chancres belong to two distinct kinds of syphilis. M. Ricord does not admit this opinion. He says that there are two essentially different types of chancres, and that one of them seems not to be syphilitic, and he maintains that there is only one kind of syphilis. He is inclined to admit the existence of two kinds of contagious virus, one of which is able to act on the whole body, and to generate constitutional syphilis, while the other is unable to produce general syphilis, and to act elsewhere than on a limited part of the body.

A summary of the important views of Mr. Paget on the cause of the rhythmical movements has been communicated by M. Flourens to the Académie des Sciences at their last meeting. M. Flourens paid a great eulogy to the views of the eminent British physiologist.

Dr. Brown-Séquard, at the same meeting of this Academy, read a paper on the relations between muscular irritability, cadaverous rigidity, and putrefaction, showing that any contraction produces in muscles a peculiar change which, if death soon occurs after it, hastens the appearance of cadaveric rigidity and of putrefaction. He points out that convulsions due to diseases of the nervous system or to poisons act in this way.

The same physiologist also read a paper at the last meeting of the Académie de Médecine, in which he relates new facts in support of his views that the transmission of sensitive impressions takes place in a crossed manner in the spinal cord, the right side of which transmits the impressions made upon the left side of the body, and *vice versâ*.

OUR GREAT ONES OF THE PAST.

MEN OF THE BRITISH SCHOOL.—No. VII.

WILLIAM HARVEY.—*Continued from page* 41.

In our last notice of the circulation discoverer we followed him to that eventful period in his life, and in the life of the world, when he gave forth his immortal treatise on the motion of the heart and blood. We then briefly indicated the manner in which this book was first received. We may profitably continue in this course a little longer, so as to trace the adventures of the first of all standard works in the literature of physiology. When the clamour with which the book was received had died away in some measure, the position of Harvey was as follows:—There was a general steady belief that he had made a great discovery; there was a limited but sturdy belief that he had not. There was a rumour that the man was a little touched in his upper story—there was a confidence that he was a theorist, and that the lives of the lieges were not safe in his professional hands. His practice, therefore, dwindled into the ridiculous small. So unpopular did he become as the physician, that one incorrigible blockhead, who, fortunately for the living remnants of his progeny, forgot to leave his card at the door of the historian, is said to have delivered himself, to this effect: "that he would not give twopence for one of Harvey's prescriptions; and could not understand his therapeutique way." Very likely not; how should he, the Album-Græcum, rotten malefactors' bones pill-maker and doser—how should he?

It is a grand feature in the character of Harvey, that he met these fooleries with the decision and calmness of a silent spectator. His communion was with nature, not men. He construed to men what nature opened to him, for their benefit, not for his own glorification. So long as this communion with his divine mistress was perfect, what to him was the prating of ignorants? He let them have their say therefore, knowing them all wrong, and replied but to Riolan, and one or two others whose obstinacy was the more wonderful. He replied to these even, not for himself but for nature; he did not say, "I believe," but "I know;" he did not whine out; "Listen to this argument," but said in a word, "Look at that fact, and if you choose to deny a demonstrable fact, I have nothing further to add."

But when the natural law thus revealed to him was established, a new phase sprang up. His detractors went off at a tangent; and they who before called him cracked, suddenly found him moderately sound above stairs, but considerably extensive as a knave. The charge of plagiarism was thrown in his teeth. Criminal Harvey, what say you to this? No word? No, not a word. Nature was his loving friend once more. He could trust to her for vindication, and wait. His rest in this respect has been long, for the imputation has never yet been fairly committed to solemn burial. It is such a magnificent scope for scandal-mongers to shower their wrath on a man who will not strike back again when alive, and cannot even fence when dead.

In defending Harvey from the charge of plagiarism, or in accusing him of plagiarism, a little knowledge of history, and of the meaning of discovery is required. Those who think that Harvey took up, in his labours on the circulation, a subject *de novo*, and worked it out to its ultimate, err in that they argue on an impossibility, for there never yet was such a discoverer, and never can be. They who maintain that a man who projects a grand principle is not a discoverer, because the elements of the discovery are in his hands, err also, because no man can work without materials. Sir Christopher Wren proved himself a great and original architect when he built St. Paul's. Nevertheless, the architect Knight had stones cut square; columns ready for design, and all the materials in his hands. On this account he was, however, none the less an original Knight Architect; for he worked out the grand design, though he never perchance put his head into a quarry or his hand to a chisel.

Harvey was more strictly an original; for he not only made out the natural design, but dug for the material facts with his own hands.

But let us be candid, and hear what has been said against our Great One, and against his claims to originality in the circulation discovery. The first story brought against him was a fair specimen of that interesting admixture of race, known in natural history, technically and scientifically, as the "Gallus-taurus gallinaceus," or in the vernacular, as the cock-and-bull hybrid. This story originated in the lifetime of Harvey himself. Its fabricator was one Johannes Leonniccnus—its hero Father Paul, since made into a sort of demi-saint; in his own way, a decent sort of old priest, and the historian of the Council of Trent. John Leon, or Layon, or Lion, whichever you like, discovered on his part, then, that Father Paul, on his part, discovered the valves in the veins, and the whole circulation. There is not a shadow of proof that Father Paul even knew the anatomy of his own nose; still he made this discovery. But poor father Paul—so says John Leon,—was not able to make known his discovery because he lived next door to the Inquisition, and because his colleagues already suspected that if they could only get off the good man's hose they would find the first stage of the cloven-foot development beneath. Thus frightfully placed, and open to the gravest suspicions, beset in front with the spectre of a cleft hoof, and behind with the horror of a Monboddo appendage, Father Paul was mum,—just sufficiently mum to save his orthodoxy and to lose his discovery. For, alack a day!—when the holy man's scientific soul was at one moment overflowing with his immortal fact, he communicated it in the dead silence of private friendship to the anatomist Fabrizzio. Fabrizzio himself, desiring no inquisitorial change of climate, kept the secret long, hard and fast. At length a pertinacious young Englishman, named Harvey, visited Padua, and ingratiated himself so far into the good graces of his master, that to him the immortal fact was opened; the Father himself taking part in the disclosure. The Englishman opened his eyes, read, marked, learned, inwardly digested; returned quickly to free England, and, awarding to Fabrizzio the discovery of valves in the veins, claimed to himself the greater problem of the circulation; and generously saved the Father from the wheel by ignoring him altogether.

This is the famous Gallustaurus story; the true reading of which is, that a copy of Harvey's book after its publication fell into Father Paul's hands; that the Father, interested in it, made notes from it of the discovery; that the notes were found after his death among his writings; and that these copies were cleverly transformed into the history of an original discovery by the long-sighted Leon.

Another priestly author, who has been described as the discoverer of the circulation and the anticipator of Harvey, is Nemesius, who became converted to Christianity about the close of the fourth century. Nemesius after his conversion was made Bishop of Emessa, and wrote a book on the Nature of Man, which was republished in England at the Clarendon Press in 1671. This book is remarkable chiefly for its metaphysical views; but there is a passage in it which has been absurdly supposed to contain the facts of the circulation. The only sentences which can possibly give rise to such an opinion are:—1st, a sentence in which he says that the pulse beat originates in the left ventricle of the heart, this being dilated and contracted regularly. 2nd, That during this dilatation it draws the thin blood from the next veins, which blood forms the food of the vital spirits. 3rd, That during the contraction it throws out whatever vapours it has through the whole body, which vapours are expelled by the mouth and nose in expiration. We need not hesitate to throw overboard this pretended discovery; there is in it no trace even of a circulation. Those who are anxious for full satisfaction about the Bishop of Emessa will get it in Friend's History of Medicine.

That immortal heretic of the sixteenth century, Michael Servetus, is another writer to whom the discovery of the circulation has been given. Without quoting in full a

passage which has been copied and recopied till it has become hacknied, we are free to confess that Servetus knew the pulmonic circulation. We are free also to say that we do not agree with Dr. Willis in his mode of shelving Servetus. Dr. Willis argues that Servetus suggested the course of the blood through the lungs, as a mere hypothetical proposal for getting over the difficulty of the solid or nearly solid septum ventriculorum. Not at all. Servetus saw the transmission clearly enough, and even argued it out, not on the ground altogether of a solid midwall, but on the fact of a relative size in the vessels of the right and left sides. Nay, he had ome idea of a change in the colour of the blood in the lungs, as a result of the admixture of air and blood in those organs. It is therefore true that Servetus knew the pulmonic course of the blood from the right to the left side; but as we find him ignorant of the continuous current in this course; of all idea of a current from arteries to veins, and of all knowledge of the heart as a contracting organ,—we must season our admiration with the conviction that the circulation of the blood would never have been understood from Servetus the brave heretic.

Another assumed discoverer of the circulation has been brought before the British public in these days by Mr. Gamgee. The discoverer in this case is one Carlo Ruini, a veterinary surgeon, whose work on the Anatomy of the Horse was published in 1599. That this claim may be fully discussed, we subjoin the passage, with a literal translation, on which Mr. Gamgee founds his advocacy of Ruini's views. We quote from the Venetian edition of Ruini's work (1599), vol. i. lib. ii. pp. 108—110.

"L'officio di questi ventricoli è del diritto disponere il sangue, che di' quello si possano generare li spiriti della vita, et nodrire i polmoni; del sinistro è ricever questo sangue già disposto, et convertirne una parte ne gli spiriti, che danno la vita, et mandare il restante insieme con quelli spiriti per l'arterie a tutte le parti del corpo. Nell' uno et nell' altro ventricolo, son due bocche ôperture; per quelli del diritto entra il sangue della vena grande, ò cava, et esce per la vena arteriale; et per quelli del ventricolo manco, entra il sangue accompagnato dall' aere preparato nei polmoni, per l'arteria venale; il quale fatto tutto spiritoso, e perfettissimo nel ventricolo sinistro, esce (guidato dall' arteria grande) per tutte le parti del corpo, eccetto che per li polmoni, per farle partecipe di qualche calore, che li da la vita. Di questi buchi del core, ogn' uso hà alla bocca tre teluccie, dette dalli greci *hostidi;* delle quali alcune sono per la parte di dentro, et altre per la parte di fuori: alla bocca del primo buco, che si vede nel ventricolo diritto, à cui si congiunge la vena grande, ò cava, è una tela, ò membrana sottile, che il buco d'ogni intorno avolge; la quale caminando alquanto versi la concavita del ventricolo, si divide in tre tele, ogn' una delle quali finisce, come in una punta di triangolo un poco più sopra la metà del lungo del ventricolo; et da ciascuna di queste punte nascono alcuni fili nervosi, che vanno ad inserirsi ne i lati del ventricolo verso il suo fine, et nelle tele, et ne i fili, alla sortanza del cuore s'attaccono. Furono ivi poste queste tele dalla natura, acioche aprendosi, lasciassero, quando il cuore s'allarga, entrare il sangue dalla vena grande nel ventricolo diritto, e vietresseco quando il cuore si ritira, chiudendo il primo buco, che il sangue stesso entrata la entro per la vena grande, non riuscire per la vena arteriale, et rientrasse alla vena grande. La tela poì, che stà al secondo buco del medesimo ventricolo diritto, al quale s'attacca la vena arteriale, non è fatta d'una semplice tela, anzi è divisa in tre molto distinte, ciascuna delle quali comincia, come in un mezo cerchio, dal tronco della vena arteriale, rilevandosi alquanto al principio, et dipoi facendosi alquanto più grossa, s'allarga fuori del core; et facendosi più grossa, fa alcuni tubercoli, che si stampano nella parte più alta del cuore; da' quali nascono tre tele, ogn' una come in una meza luna, senza attacarsi alla parte più alta del cuore, ò in altra parte alcuna. Queste tre tele, aprendosi, lasciano riuscire il sangue per la vena arteriale alli polmoni; et vietano, che per la bocca della vena arteriale aperta, di nuevo non ritorni nel destro ventricolo, allargandosi al cuore. Quasi nel medesimo modo, ch'è nel primo buco del ventricolo diritto, è posto un' altra tela al principio del primo buco del ventricolo sinistro, dal quale nasce l'arteria venale, che si distribuisce per li polmoni, eccetto che non si divide in tre parti, come quella, ma solo in due: le quali sono molto larghe di sopra, et finiscono in una punta solida, che scende alquanto più giù che le punte delle tele del ventricolo destro, et sono più grande et forti di quelle. Et l'una di' loro occupa il lato manco, l'altra il destro di questo ventricolo. L'officio suo è, quando il cuore s'allarga, aprendosi, di lasciare entrare il sangue, et li spiriti dall'arteria venale nel ventricolo manco, et impedire, quando si ritira il cuore, che il sangue, et li spiriti non ritornino di nuovo nell' arteria venale. Alle tre tele del secondo buco del ventricolo diritto, rispondono le tre, che sono poste alla bocca del secondo buco del manco ventricolo, à cui s'attacca l'arteria grande; le quali sono del tutto simili à quelle, eccetto che sono molto maggiori, et

The office of these ventricles is; of the right one to dispose the blood, so that of it may be generated the spirits of life, and the lungs be nourished; of the left, are to receive the blood so disposed, and convert a part of it into the spirits which give life, and send the remainder together with those spirits through the arteries to all parts of the body. In one and in the other ventricle are two mouths or openings; through those of the right side enters the blood of the great vein or cava, and goes out by the arterial vein; and through those of the left ventricle, the blood enters accompanied by the air prepared in the lungs through the venal artery; which blood all made spirituous and most perfect in the left ventricle, goes (guided by the great artery) to all parts of the body, the lungs excepted, to impart to them heat which gives life. Every one of these holes of the heart has at its mouth three little curtains, called *hostidi* by the Greeks; some of them are turned inwards, others outwards; at the mouth of the first hole which is seen in the right ventricle to which is conjoined the great vein, or cava, is a curtain, or thin membrane, which completely surrounds the hole, and advancing somewhat towards the concavity of the ventricle, divides into three curtains, each of which finish, as in a point of a triangle, a little above the middle of the ventricle, and from each of these points arise some nervous threads, which are inserted into the sides of the ventricle towards its end. These curtains were there placed by nature, in order that, in opening when the heart widens, they might allow the blood to enter from the great vein into the right ventricle, and that when the heart retracts, they might, by shutting the first hole, prevent the same blood there entered through the great vein, re-enter it, instead of going out through the arterial vein. The curtain which is at the second hole of the same right ventricle, to whch the arterial vein is attached, is not made of a simple curtain, but is divided into three very distinct ones, each of which commences in form of half a circle, from the trunk of the arterial vein, growing considerably thicker from its commencement, and widening out from the heart; and as it becomes thicker, it forms some tubercles, which are impressed in the highest part of the heart; from these tubercles arise three curtains, each of which in shape of a half moon, without being attached to the heart or to any other part. As these three curtains open, they let the blood pass out through the arterial vein to the lungs, and when the heart widens, prevent the blood returning into the right ventricle, through the mouth of the open arterial vein. Almost in the same manner as in the first hole of the right ventricle, another curtain is placed, at the commencement of the first hole of the left ventricle, from which arises the venal artery, which is distributed to the lungs, but does not divide into three, but only into two parts: which are very wide above, and end in a solid point, which descends considerably lower down than the points of the curtains of the right ventricle, and are larger and stronger than these, and one of them occupies the left side, the other the right of this ventricle. Their office is, on opening when the heart widens to allow the blood and the spirits to enter the left ventricle from the venal artery, and when the heart retracts, to prevent the blood and spirits again returning into the venal artery. To the three curtains of the second hole of the right ventricle, correspond the three, which are placed at the mouth of the second hole of the left ventricle, to which the great

più forti; come è ancor maggiore l'arteria grande che la vena arteriale. Queste tele, quando il cuore si ritira, aprendosi lasciano uscire lo spirito vitale col sangue, che va con empito nell' arteria grande; et quando s'allarga il cuore, vietano chiudendo il buco, che lo spirito et il sangue non rientri di nuovo nel ventricolo."

artery is attached; the curtains of the two sides are altogether similar, except that the left ones are much larger and stronger, as the great artery is also larger than the arterial vein. When the heart retracts, these curtains opening allow the vital spirit to pass out with the blood, which goes with impetus into the great artery; and when the heart widens, they, by shutting the hole, prevent the spirit and the blood re-entering the ventricle.

Such is the description of Carlo Ruini, and a wonderful description it is. We give our best thanks to Mr. Gamgee for lifting it out of the rubbish of antiquity. We accord to him gladly, that he is the first who has brought out the fact of a reasonable pre-Harveian approach to Harvey's discovery, and we accord to Ruini with equal pleasure his just merits.

His merits are—1. That he had a consummate knowledge of the anatomy of the heart. 2. That he had a shrewd notion, derived evidently from a study of the mechanism of the heart, of the course of the current of blood through the heart. No more. If Servetus may be said to have known the pulmonic circuit, Ruini may be said to have known the pulmonic and the cardial circuits. Here he stopped. Of the grand circle, of the two circulations, or of the one circulation with the heart as the centre, as the connecting organ, and as the common forcing machine for both, of the continuous stream always going on, of the endless blood chain—of these things Ruini knew no more than his fellows, nor would the circulation ever have been comprehended if the physiology of the heart and blood had remained where he left it.

(To be continued.)

PROGRESS OF MEDICAL SCIENCE.

Selections from Foreign Journals.

ON CHOREA,

By Professor TROUSSEAU.

We extract some interesting points from a Clinical Lecture recently delivered by M. Trousseau.

The greater liability of the female sex to this disease is shown by the fact that during the four years M. Trousseau has been at the Hôtel Dieu he has had to treat 15 cases of chorea occurring among females, and not a single one among males. Among children the affection may be as often met with in boys as in girls; but while it is often seen after the age of 15 in girls and quite young women, it is very exceptional in young men. M. Trousseau's cases occurred between the ages of 15 and 20.

Speaking of mechanical restraints, when the convulsions become excessively and even dangerously violent, he cautions against the use of the strait waistcoat or tying the feet, as very dangerous practices. For in spite of all obstacles a certain amount of motion is constantly going on in chorea; excoriations, which increase to deep wounds, are produced at the elbow, wrists, heels, etc.—wounds the consequences of which may be fatal. The movements must be left quite free, for bad as this may sometimes be, it is far better than the employment of fastenings. Some time since M. Trousseau invented a box-bed for these patients, and from the employment of this he has derived the greatest advantage in many cases. It consists in a large wooden box, well cushioned throughout the whole of its interior, and 2 metres long, 1½ broad, and 1¼ deep. Above, are fastened two strong sheets or coverings. The child is put into this, either naked or *en chemise*, and left to itself. The blows against the cushions become deadened and do no harm; and in cold weather vessels with hot water are placed under the mattress.

At the early period of chorea sleeplessness is a very usual symptom, and may go on even to become alarming, the patient perhaps only sleeping 1 hour out of the 24. As children require from 12 to 15 hours, and adolescents about 9, this privation not only indicates an abnormal state of things, but becomes a source of debility and excitement. This loss of sleep may continue from 3 to 6 days, the nervous symptoms generally assuming a very exaggerated form, and fever coming on. When fever and delirium follow this state of insomnia, the most cautious prognosis must be delivered, as in most such cases all that can be done will fail, the fatal issue not being far off. When tepid baths do not succeed in producing sleep, opium must be given in gradually increased doses until somnolence is produced. There is no fixed rule as to the dose, the effect being our guide; and we must go on feeling our way, and watching the effects, suspending the medicine on the approach of sleep.

Although the relations of chorea and rheumatism had been noticed by various observers, it is M. See who has especially studied these, and furnished a somewhat exaggerated account of them; but still the connexion between the two affections is always to be remembered as a great pathological law. Bearing it in mind, M. Trousseau has been enabled on several occasions to predict the invasion of a chorea or rheumatism. This question the more interests him as scarlatina is often followed by chorea, and he has already demonstrated that a well marked correlation exists between scarlatina and rheumatism. A scarlatina patient may become rheumatic without this being suspected; but when examined some of the joints will be found to be the seat of rheumatic inflammation, the pain being so slight as to have scarcely excited attention. In other, but much rarer cases, the rheumatism is of a very severe character. Let it, however, be always borne in mind that rheumatic pains occur in a third of the cases of scarlatina.

Although it is true that chorea left to itself may at last become cured, yet the intervention of medicine is of avail in preventing serious phenomena, moderating accidents, and abridging the duration of the disease. Among the means employed in its treatment cold baths are efficacious, acting probably in part as sedatives, and in part as tonics, as also, as when used in the form of sudden immersion, by the shock they induce. At all events they constitute an inoffensive means, which, in combination with other treatment, may do good service. M. Trousseau cannot understand why the sulphurous baths should meet with such favour at the *Hôpital des Enfans*. The gymnastic treatment has also been much followed there, but this can only be regarded as an accessory means, useful towards the decline of the disease. Moreover, the means of putting it into force are not readily met with, and M. Trousseau has found a very useful substance in the employment of a metronome, the number of the oscillations of which can be regulated, each being indicated by a clicking sound. If one of these be placed before the patient, the sight and sound of the oscillations become of great utility in assisting him in regulating the movements of the whole or a part of the body. It is, however, only an adjuvatory means, and is more useful in the case of tic, the patient being directed to produce his tic voluntarily at the same time the click of the instrument is heard. He becomes fatigued by this voluntary effort, and the tic is speedily modified, though rarely cured. M. Trousseau has since 1841 been in the habit of treating chorea methodically by the syrup of sulphate of strychnia, which is preferable to nux vomica itself. He dissolves 5 centigrammes of the sulphate in 100 grammes of simple syrup, that is, about 25 teaspoonfuls, so that each teaspoonful contains 2 milligrammes, *i.e.* one-thirty-fifth of a grain of the sulphate. At first a teaspoonful is given daily between breakfast and dinner, and if no effects are produced in two or three days it is given in the morning fasting and at bedtime. The dose is, after awhile, increased to 2 teaspoonfuls, to 3, or even to 4, continuing it until stiffness of the neck and jaw and slight convulsive movements of the limbs are produced. The choreic movements now rapidly diminish, and sometimes after 15 or 20 days of treatment the disease seems cured. Prudence must be observed in gradually increasing the dose, but with this accidents are not to be feared. The convulsions that are produced must not alarm us, as they are never dangerous if not carried too far. When the syrup has been taken for some days, stiffness of the jaws, headache, disturbed vision, vertigo, and itching of the scalp come on. The observation of this last sign, which the patients compare to pricking with small needles, is the safety-valve in the use of the medicine, as it is

one of the earliest signs of its operation. When the children are standing they are seized sometimes with sudden sharp cramps, which oblige them to catch hold of any object. They should then be laid down. It is impossible beforehand to state the dose of stryehnia that may be required; for very different effects are produced even by the same dose in the same child. With this means others may be used, accordingly as the patient is plethoric, chlorotic, or hysterical.—*Gaz. des Hopitaux*, Nos. 9, 10, 18.

ON THE VENOM OF CERTAIN BATRACHIAN REPTILES.

By M. VULPIAN.

During some experiments upon the triton or aquatic salamander (*Salamandra cristata, Latr.*), M. Vulpian observed a whitish fluid exuding from the skin of the back, and especially near the tail, which he found to be a venom analogous to that furnished by the toad and terrestrial salamander. The fluid may be obtained in increased quantities by pressure with the forceps, or by incision with a scalpel. It is thickish and milky, of a penetrating, disagreeable odour, rapidly becoming viscous on exposure to the air. Inserted in the cellular tissue, it kills large dogs, guinea-pigs, or other animals, but it is less energetic and rapid in its effects than the venom of the toad. The venoms of both exert a powerful action upon the heart, the motions of which they arrest by the exhaustion of muscular irritability. This irritability is indeed more quickly destroyed by the venom of the triton than by that of the toad. The latter, too, induces a stage of excitement or convulsion, with vomiting, while the effects of the other are more stupifying than exciting. The author found considerable irritation induced by dropping minute portions of the venom into his eye and nostrils; but no irritation was ever produced on the unbroken skin. The mere application of a layer of the venom of the toad to the skin of frogs will poison them, but this is not the case with that of the triton.

M. Vulpian's experiments with the venom of the terrestrial salamander were few in number and confined to frogs; but these were sufficient to prove that it is a very energetic poison, exerting a special action on the nervous centres and probably upon the spinal cord. Although, however, it speedily gives rise to violent convulsions, it does not produce death so rapidly as do the venoms of the toad and triton. Moreover, during the whole time of the continuance of the symptoms of poisoning the functions of the heart are but little disturbed.

Thus, the toad, the triton, and the terrestrial salamander possess a venom consisting in a lacteseent fluid contained in subcutaneous follicles. These venoms, introduced under the skin, manifest an energetic action, and even when in small quantities usually cause death. Brought in contact with the mucous membranes of the mammalia, they induce more or less irritation. The phenomena of poisoning vary according to the venom employed; but all these venoms exert a powerful action upon the nervous centres. The authors experiments further show the curious result, that the venom of a toad will not poison toads, that of a triton, tritons, or that of a salamander, salamanders; but the venom of a toad will poison tritons, and that of tritons or salamanders will poison toads. It is probable also that the venom of toads and tritons will poison salamanders, but the author has not been able to try the experiments. These results call to mind the observations of Fontana, that the venom of a viper will not poison vipers.—*Gazette Méd.* No. 2.

ON HEMERALOPIA, AS IT APPEARED ON BOARD THE ALCESTE FRIGATE.

By M. GUEMAR.

The Alceste was engaged in a voyage in the Pacific, during the years 1854-6, during which she lay at anchor 11 months, was traversing the ocean 22 months, and engaged in cruising 2 months. Scorbutus appeared on board; the same causes producing and similar treatment relieving the two diseases, and establishing a connexion between them, or rather a dependence one upon the other, already pointed out by the English authors. It was found, but with one exeeption, that the men with blue or grey eyes were alone the subjects of the disease, and that it was nearly confined to those of lymphatic temperament, having flaccid muscles, a fair skin, and light-coloured hair. It attacked persons of all ages, but especially youths and novices. It was generally unattended with pain or uneasiness, the sight becoming more and more defective towards the period of sunset. With some, vision was then entirely lost, but others could perceive a lighted candle or burning coal. The light of the moon enabled some patients to get about, but not others. In cloudy weather most persons are unaware of the precise moment at which the sun rises or sets; but some of the patients distinguished these periods, without being aware of them, in consequence of their then recovering or losing their vision. Some of the patients lost the visual faculty of the retina only in part, being able to see very well objects above them, but not those opposite to or below them. With others the opposite prevailed, while others again lost the visual power on the lateral parts only. The sailors who suffered from this affection all exhibited indubitable signs of scorbutus; and when this latter affection was very serious they have never afterwards completely recovered their vision. While at anchor, when fresh vegetables and fruits could be procured, these with visits on shore modified the constitution, and vision was regained, to be lost however after a few days salt provision at sea. Contrary to the usual description of the disease, the pupils were usually in these cases very dilated. In old cases, however, there was sensible contraction; and in the same cases, seen at an interval of 6 months, a considerable difference in this respect might be observed. At the commencement of the affections, blistering, local stimuli, and tonic regimen were found of service, but after a while all medicinal agents were useless, and all hopes of cure rested in the altered regimen met with when at anchor. In one case, wherein death resulted from fever, the ophthalmic ganglion, as well as the adjoining filaments, were found very red, the vessels of the eye being distended, and the choroid reddish instead of black. The central artery of the retina was distended with blood.

GENERAL CORRESPONDENCE.

ELECTIONS AT THE ROYAL ORTHOPÆDIC HOSPITAL.

To the Editor of the Medical Times and Gazette.

SIR,—In consequence of a letter in your last Number, headed as above, I beg to inform your readers,—

1. That there has never been a Senior Assistant-Surgeon of this Hospital, or any priority whatever between the two Assistant-Surgeons.

2. That I never entered into any agreement or understanding not to issue testimonials.

3. That the Committee required testimonials to be furnished; and my opponent knew, at least the day before our addresses were out, that I intended to publish mine.

4. That I entered into no agreement not to canvass before the vacancy was declared, for I had no idea of infringing the rules of the Hospital.

5. That I sent the circular referred to because I had written evidence that my opponent's friends were actively canvassing on his behalf.

As ample evidence can be adduced in support of what I state, I shall not observe upon your correspondent's letter, or upon his conduct in publishing a purely private letter for such an object as he states, but shall content myself with following him in "leaving all comment for yourself and your readers."

I am, etc. WILLIAM ADAMS.

5, Henrietta-street, Cavendish-square,
October 21, 1857.

PREMONITORY DIARRHŒA IN THE LATE CASES OF CHOLERA AT WEST HAM.

[To the Editor of the Medical Times and Gazette.]

SIR,—In an article in your last number it is stated that cholera has broken out at Stratford, West Ham, suddenly; that seven deaths had occurred, and that you had been informed that those persons who were attacked had had no premonitory diarrhœa.

I have been to Stratford, and I have seen the relatives and friends of those who have died of cholera, and here is the in-

formation I have collected relative to the existence of a premonitory diarrhœa in these cases.

Case 1 died on the 2nd October—Mrs. Creswell. Her daughter and her neighbour informed me that she was taken with diarrhœa at six a.m., that she began to vomit and to have cramps at about twelve o'clock that day, and died in the evening.

Case 2 of death occurred on the 4th October, in a man aged 28 years—Redpath. His father informed me that his son had diarrhœa for above a week previous to the attack on the evening of the 3rd October; that he had some medicines for the diarrhœa on the evening of the 3rd October; that he appeared otherwise in good health, ate his food, and did his work as usual; but at nine p.m., on the evening of the 3rd was seized with severe purging, followed by vomiting, cramps, &c., and died at seven a.m. next morning.

Case 3.—Anna Miller, aged 23. From a neighbour of her's who attended her, I learn that she was taken ill with diarrhœa at about four o'clock a.m. on the 7th October; that between four and half-past five a.m. she repeatedly went down stairs to the water-closet; that at half-past five a.m. she was taken with vomiting, spasms, etc., and died at half-past three p.m. that day. My informant is not aware whether or not this woman had diarrhœa the day before, or whether she had had any passage in her bowels during the night.

Case 4.—George Morris, aged 24. He died on the 9th October. His father and mother informed me that they are not aware whether he had diarrhœa or not up to half-past eight p.m. on the 8th October; that he then had an attack of diarrhœa, and went to bed; that at half-past ten p.m. he was seized with vomiting, severe purging, and spasms, and died at seven a.m. next morning.

Case 5.—Mrs. Pigram, aged 58. Died 11th October. She had had an attack of paralysis, from which she was recovering. She was still, however, under medical treatment, and she took at bed-time, on the 10th, a pill composed of gamboge and aloes; at four a.m., next morning, she was seized with diarrhœa. Her relative, my informant, then saw her from four to eight a.m.; she had several liquid stools, at 8 a.m. the vomiting, spasms, &c., came on, and she died on the 12th at seven a.m. My informant is not aware if she had any diarrhœa on the 10th October; as she walked about she might have gone to the water-closet unknown to her.

Case 6.—Mansfield, aged 3½ years. His mother is aware that he had had a passage in his bowels in the morning at about nine o'clock, but as he went to the water-closet, she does not know whether the evacuation was liquid or in large quantity, and she is not aware that he had a second passage in his bowels before three o'clock p.m. She had another child very ill with fever, and her attention was particularly fixed on this second child. The boy was out playing about the door and street, and he might have had a passage or two in his bowels out of doors, unknown to her. However, he appeared in good health, ate his breakfast, and dinner at twelve o'clock as usual. At three p.m. he felt a pain in his stomach, when he had a large liquid evacuation, containing, as his mother observed, very little fæcal matter. He then vomited his dinner, which had consisted of cold mutton and bread, just as he had eaten it, undigested, and this vomiting was followed by very slight cramps and collapse. He died at seven p.m. that evening.

Case 7.—Mrs. Palmer, aged 63. Her daughter informed me that her mother had been confined to her bed for the last six years; that at about eleven a.m. on the day of her death she complained of sickness, but did not vomit, and her daughter gave her a small quantity of brandy. As soon as she had taken the brandy she had a fit, and foamed at the mouth. While insensible she had an evacuation. Recovered consciousness for a short time, had another fit, and died at half-past five p.m.

We have here six deaths from cholera; the seventh case is not one of cholera. Five of these cases had a premonitory diarrhœa for a shorter or longer time previous to the attack of vomiting, spasms, etc. But had the sixth case, that of the boy Mansfield, a premonitory diarrhœa? In my opinion he had; and here are my reasons. His mother remarked at the time that the evacuation at three p.m. contained very little fæcal matter. What had become of the fæcal matter which every one has in his bowels previous to this being washed out of the bowels by a diarrhœa, or by a very strong dose of purgative medicine; and even by a strong dose of purgative medicine every Medical practitioner is aware how difficult it is to clear the bowels of all fæcal matter. The child, although in apparent perfect health, could not be so in reality, for three hours after he had dined he returned his food undigested. Therefore, from the small quantity of fæcal matter in the evacuation at three o'clock p.m., I am led to conclude that this boy had had certainly one, if not more, liquid evacuations previous to that at three o'clock p.m., which had carried off the greatest quantity of fæcal matter from his bowels; and that although playing about, and apparently enjoying himself, he was not well previous to three o'clock p.m., as his stomach had not digested the food taken three hours before. We must not be led away by the apparent good health of this child up to three o'clock, for all those accustomed to see and to study cholera are aware that individual cases are constantly met with, where the individual is pulseless, where no beating of the heart can be heard, where the skin is blue, cold, and covered over with the clammy dew of death—who are at their usual occupations, or amusing themselves, and appear to all about them to be in perfect health. Yet they are then too often past all human aid: and to give you only one example, there is the case of a man who died at No. 6, Holland-street, St. Saviour's, on the 3rd November, 1853. That man was at the moment laughing heartily in a society of his friends at some joke; in the act of laughing he was seized with vomiting, cramps, severe purgings, in rapid succession, and he died in a few hours; and on the authority of four medical gentlemen who had attended him, his was reported to the Registrar-General as a case of cholera without a premonitory diarrhœa. Yet when the case was more carefully inquired into, if we believe his brother and sister he had had diarrhœa off and on for two months, and took rum to cure himself; and if we are to believe his landlady and a fellow-lodger, he was seen to go that day repeatedly to the water-closet, and at his tea that evening he took rhubarb in his tea to settle his stomach, as he said, as his inside was out of order.

Therefore this man appeared in perfect health to all around him, although he was, if we believe his landlady and his fellow-lodger, labouring under diarrhœa at least for a day; and if we believe his brother and sister, he was labouring under diarrhœa for two months; and in all probability this man was past all human aid at the time he was laughing so heartily at the joke of his chum. And such a case as this must force us to pause, before we can pronounce that the boy Mansfield was in good health and free from a diarrhœa previous to three p.m. And therefore, in conclusion, I have no doubt that these six cases of cholera were preceded by a premonitory diarrhœa for a longer or shorter period.

I am, &c.

D. Macloughlin, M.D.
Oct. 22, 1857. Member of the Legion of Honour.

P.S.—With reference to the 5th case, that of Mrs. Pigram. She took a pill at bedtime composed of gamboge and aloes, Did that purgative pill usher in the attack of cholera? It is a well observed fact, that where cholera is about one-half, one-third, or one-quarter of the usual dose of purgative medicines will bring on diarrhœa, followed too often by fatal cholera—as was observed in St. George's Hospital in 1854, where four individuals had the usual purgatives administered for other diseases, but were all four seized with diarrhœa followed by cholera, of which one died.

My friend, Dr. Webster, of Brook-street, West, who has just returned from an extensive tour in Scandinavia—where cholera raged—informs me that he had remarked that in the Hospitals which he visited, all the other diseases assumed a typhoid type, which observation comes in support of what has been remarked in this country, as stated above.

UNIOCULAR CATARACT.

[To the Editor of the Medical Times and Gazette.]

Sir,—Through the pages of the *Medical Times and Gazette* I became acquainted, on the 16th of this month, with the views of Graefe on uniocular cataract operations, a subject upon which I have bestowed a good deal of attention. The accompanying manuscript is a verbatim copy of one that has been lying in my desk since May last, and which was written as an introduction to a series of cases that I had collected from my own practice and from books. I am induced to send

it to you (for publication, if you esteem it sufficiently worthy), as, without the slightest knowledge of the opinions of Graefe, it will be perceived that I have arrived at the same practical conclusions.

I have not inclosed an abstract of the cases, because most of them have been already published in a contemporary Journal. Thanking you very much for the great service you have done to Medical science, by giving the views of the learned German to the English reader,

I am, etc. James Vose Solomon, F.R.C.S.
Surgeon to the Birmingham Eye Infirmary.
Birmingham, Sept. 22, 1857.

When an eye is cataractous, but otherwise healthy, and its companion in the possession of useful vision, is it expedient to remove the opaque lens? The cataract having been successfully removed, what will be the effect of the operation upon the vision of the patient?

The opinion of the Profession has been many years divided respecting the propriety of removing a fully-formed cataract by operation when the companion eye is healthy, or its lens so slightly opaque that useful vision is enjoyed. The discussion of this question will be narrowed, and a solution of it more easily attained, if we exclude from consideration instances of hard cataract occurring in old people, and requiring for their cure to be extracted through a half section of the cornea—an operation that exposes the eye to the risk of destruction; and if we limit the controversy to cases where the lens is of soft or moderately firm consistence, and which are capable of being safely and successfully removed by that beautiful and simple process termed "the operation of solution," or absorption—Keratonyxis.

The advantages to be derived from the succesful removal of a fully-formed single cataract, the eye being in other respects normal, will be, according to my experience and reflections, considerable, and may be enumerated as follows:—

1. The natural brightness, intelligence of expression, and beauty of the eye are restored—resnlts, it will be admitted by the most prejudiced, of no mean importance to young females, servants, and others.

2. A more extended range of vision is obtained, *especially laterally;* the eye even unassisted by a cataract glass is capable not merely of seeing, but of identifying the features of strangers at a distance of from one to three yards, and men from other objects at from 20 to 200. In Case 31, quarter inch type could be clearly read.

3. Whatever degree of vision may be realised, the tendency to fatigue and functional disorders in the anatomical perfect companion is lessened or cured (as in Case 32).

4. The operation by giving to the posterior internal tissues of the globe their natural stimulant, light, is a means of improving and maintaining their nutrition, and hence is a preventive of ocular diseases of anæmic origin.

5. Moreover, through sympathy the general nutrition of the corresponding eye will be invigorated, a striking and very instructive illustration of which is presented by Case 35, when the cure of the cataract was the prelude to recovery of sight in its amaurotic companion. A parallel instance has been recorded by Serres of Montpellier, in the Annales d'Oculistique, Fév. 1843. Furthermore, in Cases 33, 34, 36, 37, 38, &c., even an incipient opacity of the companion lens underwent, in the opinion of those who observed and reported them, a natural cure. The possibility of this, however contrary to our preconceived opinions or daily experience, seems to have been placed beyond dispute by the clinical experience of the late Mr. Guthrie, an authority, it will be admitted, in every respect competent to form an accurate opinion on such a subject. Analogues to the instances of amaurosis above referred to are, I conceive, to be found in those instances where the excision of a disorganized globe has proved curative of disease in its sympathising companion.

In order to preserve the function of the lensless eye in a normal condition, and confer the greatest possible amount of benefit to the individual's vision, it is desirable that a two or two and a half inch cataract glass should be occasionally worn for the binocular view of near and minute objects, as for instance in reading and writing, etc., and a six-inch for the observation of those at a long distance. The focus of the eyes of long-sighted persons is more difficult to adjust than that of others; yet, so far as my experience at present extends, it may always be accomplished if sufficient pains be taken. In one case I succeeded when an optician had failed.

6. The vision of the eye operated upon having been preserved in a state of vigour by the means indicated, it will be self-evident that, in the event of accident or disease causing blindness in its fellow, it would be immediately available for use; whereas if the cataract has been allowed to remain, the unfortunate patient will have to wait, in a state of blindness, its removal by operation, and will perhaps afterwards obtain only a limited degree of vision, if any, in consequence of long continuous inaction of the special functions of the organ.

The objections that have been raised to operative interference are two in number:—1. That the vision, in consequence of the unequal adjustment of the two eyes, must be confused. 2. That the operation may endanger the safety of the sound eye, by exciting sympathetic disorder.

In regard to the first my experience will show that confused vision is the exception, and not the rule, and when present can be readily corrected by a cataract glass. It may be added, that in the course of the nine years I have been officially connected with the Birmingham Eye Infirmary "no patient has ever complained to me of the result of the operation, but many have testified their satisfaction. The late Mr. Guthrie has referred to some cases in which there was confusion of vision, but he does not state that the inconvenience was irremediable by spectacles; indeed, judging from what he has written on the subject, it is evident that he was not aware of the degree of excellence of sight that may be enjoyed by their aid, and that he had overlooked the physiological part of the question; also, that in the event of a mechanic engaged in working upon minute objects being affected with confused vision from the cause indicated, and not feeling at liberty in the presence of his employers to wear a glass, there would be the alternative of following the example of watchmakers, who labour many hours consecutively with one eye closed.

The objection, that the operation may be the cause of sympathetic inflammation in the other eye, is a myth which a few months' attendance at an Eye Infirmary where traumatic and other cataracts are submitted to operation, will effectually dissipate.

In the discussion of the questions propounded at the head of this paper I have designedly abstained, as much as possible, from quoting authorities, except in the form of well-authenticated cases, because the question is one of fact purely, and not of names, and can be decided in a satisfactory manner only by an appeal to clinical records and well-established physiological principles.

Having adopted the latter course, I maintain—

1. That a single cataract of soft consistence occurring in an eye otherwise healthy should be submitted to an operation for its cure.

2. That confused vision is the exception, and not the rule, and when present susceptible of correction by an optician's lens.

REPORTS OF SOCIETIES.

THE PATHOLOGICAL SOCIETY.

Tuesday, Oct. 20.

Dr. Watson, President, in the chair.

This, the opening meeting of the session, a very full one, was held in the rooms of the Medico-Chirurgical Society for the first time.

The President, in his introductory remarks, congratulated the Society on the much-increased accommodation they had obtained. He had long taken a deep interest in its labours, and believed that they had been productive of much good. The session now begun would, he trusted, not be inferior to to any of its predecessors. One hint he would offer for the guidance of the members, that they should endeavour rather to bring forward preparations bearing upon the establishment or subversion of pathological laws, than those which would rank only as rare specimens or as morbid curiosities. By so doing, a more direct advantage to practical medicine would be secured. He trusted that, as heretofore, members would

endeavour to be very brief and explicit in their communications, remembering the amount of business which they had to get through. He would even venture to hope that the commencing year might in some respects surpass the previous ones, and that as the Society had now been transplanted into a new soil and purer atmosphere, it would develope into yet more goodly proportions, and bring forth even better fruit.

After some preliminary business,

Dr. Murchison exhibited a specimen of

PERFORATING ULCER OF THE DUODENUM.

The patient, a stout man, aged 37, had been admitted into King's College Hospital, shortly after midnight, on the morning of August 19, 1857. He had followed his occupation as a potman in a public-house, and had enjoyed excellent health up to the morning of the 18th, having never complained of loss of appetite, sickness, nor pain after meals. On the morning of the 18th he was suddenly seized with symptoms of peritonitis; and on his admission into Hospital he was in a state of collapse, and died three hours after. On examination after death, there was found a perforating ulcer in the anterior aspect of the first part of the duodenum, immediately beyond the pylorus, which had allowed the contents of the bowel to escape into the peritoneal cavity. The perforation of the peritoneum measured three lines in diameter; but the mucous and muscular coats had been destroyed to a much greater extent. There were a few other small and superficial ulcers in the neighbourhood of the perforation; but the mucous membrane of the rest of the gut and of the stomach were quite healthy. Dr. Murchison observed that the total want of symptoms in the patient, previous to the occurrence of fatal peritonitis, was especially remarkable. Several similar cases had already been recorded (more particularly by Dr. Budd, in his work on Diseases of the Stomach), proving that perforating ulcers of the duodenum must be regarded as one of the causes of "sudden death."

Mr. Athol Johnson showed a specimen of

SUPERNUMERARY TOES.

He had removed them, four in number, from the left foot of a girl, aged 6, a patient at the Hospital for Diseases of Children. No similar deformities had ever been known to occur in her family. A minute dissection had been made, and showed three of them connected with the outer side of the great toe, and one with the toe next to it. Mr. Johnson remarked upon the much greater frequency of six toes than of four, reminding the Society that the former abnormity was sufficiently common for the Romans to have given a special name to those so distinguished.

Mr. Nunn brought forward the particulars of a case of

CONGENITAL ABSENCE OF THE LATISSIMUS DORSI AND LOWER PART OF THE PECTORAL MUSCLE.

The peculiarities were illustrated by drawings, the patient being still living. The subject of the malformation was a youth, now aged 18, strongly developed in all other respects. No other deformity has resulted beyond marked hypertrophy of the teres major muscle, and general fulness of the other scapular muscles, causing the hollow left by the absence of the latissimus dorsi to be the more apparent. No interference with the movements of the arm could be discovered. The young man, however, stated that he could not lift the same weight withthe right arm as with the left. The malformation was not hereditary. It affected the right side.

Mr. Holmes showed a preparation from a case of

INTRATHORACIC CANCER, SIMULATING ANEURISM.

A man had died in St. George's Hospital having had a tumour projecting through his sternum, which all had supposed to be aneurismal. He was aged 22, and looked robust. His first symptom had been pain in the chest nine months ago. He had spat blood in small quantity twice. There was pulsation in the tumour, but no distinct aneurismal bruit. He had had dysphagia for about a week, and much dyspnœa. He died of dyspnœa. The autopsy showed a mass of medullary cancer beneath the greater pectoral, perforating the sternum, and occupying the upper parts of both lungs. Many tubercles of cancer were also found in the heart itself, and the pericardium adhered to the tumour. The trachea and œsophagus had been pushed backwards. The entire absence of cachexia, and the existence of a forcible pulsation, had been the chief symptoms which had led to the error in diagnosis.

Mr. Balding showed a

MALIGNANT ULCER OF THE ŒSOPHAGUS, PERFORATING THE SUBCLAVIAN ARTERY.

A man, aged 65, of healthy aspect, had suffered ill-marked symptoms of œsophageal obstruction for a few weeks, when he suddenly began to vomit blood profusely. The bleeding recurred twenty-four hours after the first attack, and carried him off. At the autopsy a malignant ulcer was found, sloughing in its centre, and opening into a pouch, which pouch communicated with the right subclavian artery, about an inch from the origin of the latter. The disease was epithelial cancer, and presented the usual microscopic and general features.

Dr. Brinton and Dr. Wilks were appointed to further examine the specimen, and report.

Mr. Henry showed a

FIBRO-PLASTIC TUMOUR OF THE HUMERUS.

A married woman, aged 35, in fair health. In September, 1856, she began to suffer from severe pain in the shoulder, which was believed to be rheumatic. Various remedies were employed without relief. In October following, enlargement first commenced, and the pain became much aggravated. She was admitted at the Middlesex Hospital in September, 1857. The tumour was then about the size of an orange, and projected from the front of the head of the bone. In the amputation the head of the humerus was found separated from the shaft. She recovered well after the operation. The tumour consisted of fibro-plastic structure, with some myeloid bodies. Where the tumour was softest the myeloid bodies were most abundant. Mr. Henry commented upon the unsuitableness of the term myeloid as used to designate these tumours. They were in their great bulk fibro-plastic in structure, and myeloid cells were only found in the medulla of the bone. He had never seen or heard of a myeloid tumour without a mixture of fibro-plastic elements, usually in large quantity, and he much preferred to retain the old name.

Dr. Hare showed a specimen of

HYDATID CYST EXPECTORATED FROM THE LUNG.

The patient, a young man, had been ill for six months, and had twice spat blood. Six weeks ago he had pyrexial symptoms, and his pain in the chest became more acute. After an attack of severe and suffocative cough he brought up a piece of membrane. A few days afterwards another portion of membrane was expectorated, the size of a five-shilling piece, after which much puriform matter followed. It was remarkable for its large size. There were no signs of the cyst being situated in the liver; no pain in the hypochondrium, or indications of biliary derangement. He was somewhat emaciated. No echinococci had been found with the microscope, but sections of the cyst wall showed characteristic appearances.

(To be continued.)

ROYAL SOCIETY.

Professor Henfrey has communicated a paper by Dr. Peter Martyn,

ON THE FUNCTION OF THE THYROID BODY.

After referring to the form, situation, connexions, and internal structure of the thyroid body, its large supply of blood, and its capability of sudden alterations of bulk, the author briefly adverts to the unsatisfactory explanations which have been offered as to its function, and then proceeds to state his own views, as follow:—

"The upper part of the trachea, the larynx, and the passage of the fauces and mouth constitute the organ of voice; the two former are the essential or voicing part, as mechanicians call it, that which produces the tone. The larynx and trachea—taking a share in other functions and being associated by juxtaposition and attachment with contiguous organs—are always pervious and open for respiration; lengthen and shorten, fall and rise with the œsophagus in deglutition, and bend and turn with the universal motions of the head and neck.

"To admit of this great mobility and flexibility, a certain

structure is necessary. The larynx is a triangular box, enclosing the apparatus of the chordæ vocales; its two cartilaginous sides or alæ, diverging from the front, are not fixed but free at the back, being completed by soft parts; the trachea is composed of a succession of incomplete cartilaginous hoops or rings lying apart, the back and intervals being made up and the tube completed by soft membrane.

"Now the structure of a wind instrument, such as that of the human voice, requires the opposite properties. It must be rigid, tense and inflexible. The qualities of the tone will be in exact proportion to these properties. How then is the soft, slack and flexible vocal tube rendered thus rigid, tense and inflexible, and fit to produce pure tone? The muscles of the larynx, the thyro-hyoid and sterno-thyroid, merely raise or lower, or fix it in any position: not lying on, or being parallel to, but diverging from the vocal tube, they cannot affect the object referred to. It appears to me that the thyroid body is provided for this purpose. The act of uttering a tone or of speaking stops the return of the blood from that organ, distends and renders it tense, and from the nature of its attachment round the top of the trachea and on the free sides of the alæ of the larynx, renders them fixed, firm, and tense also. This effect is aided by the aforesaid muscles, the thyroid body being interposed and giving them more advantageous mechanical action. This tension may be in any degree, and on energetic speaking or singing, the increased size of the part and the fulness of the collateral veins may be seen. This is the reason of its large supply and free distribution of blood. An instance of the want of this tension in an instrument may be seen in the bagpipe, where the porte-vent is attached to the chanter or voicing part by a flexible joint or by leather, and the tone is in consequence squeaking and uncertain.

"Besides thus giving rigidity, firmness and tension to the organ of voice, the thyroid body also acts in another capacity —as a loader. In most musical instruments, loaders are used to render the vibrations slower and longer, and the tone in consequence fuller, louder and deeper. They compensate for want of size and space, and give to a small instrument, or to a small vibrating or voicing part of an instrument, the power and quality of a large one. The human organ of voice is 8 inches long, and has the same power as, and better quality of tone than, the instrument that most nearly approaches it,—the French horn, which is 9 feet, or the "vox humana" pipe of a moderate-sized organ, which is from 4 to 8 feet long. This economy of size in the human organ has always been wondered at, but never, that I know, explained. Besides the thyroid body, another part, the structure of which I shall describe on another occasion, aids in this admirable economy. The nearer mechanism of human design approaches to perfection, the more it resembles similar structures in animal mechanics. The base of all stringed instruments and musical boxes is loaded: in most wind instruments the voicing part is thus loaded and strengthened, as in the organ pipe, horn, flute, clarionet, &c. The bassoon, which in its lower notes approaches the human voice, is uncertain and wheezy in tone for want of this provision.

"When the thyroid body is small and thin, the voice will be found to be small and shrill; when large, the tone will be full and sonorous; when it is morbidly enlarged, the voice will be deeper and more base; and when very large, as in bronchocele, the voice will be smothered.

"The compass of the voice is in great part produced by the raising and lowering of the larynx, the shortening and lengthening of the vocal tube. The thyroid body partakes of this motion, at the same time firmly fixing and rendering tense the parts in each position. By its change of shape, bulk and density—flattening and thinning when the larynx is raised, enlarging and bulging when it is lowered—it aids in giving the particular tone or pitch, high and acute in the first case, full and deep in the second; and, in like manner, by its varying shape, bulk, density, and pressure, it takes a great part in producing the wonderful qualities of modulation and expression peculiar to the human voice. In animated conversation, declamation and singing, this may be seen.

"Its function then appears to be threefold—rendering the slack, mobile and flexible vocal organ or tube rigid, tense and inflexible, and fit to produce pure tone; by its bulk and density acting as a loader and strengthener, making the tone more sonorous, full and deep, and thus compensating for want of length and size in the organ; and finally, by its varying shape, bulk, density and pressure, furnishing an important aid in producing the inimitable qualities of modulation and expression enjoyed by the human voice.

"That it is a part of the organ of voice and an important accessory in giving it perfection, may be inferred also from its situation on the larynx and trachea, and its being supplied by the same nerves—its being largest in man, where the voice and speech are perfect—its being proportionally larger in women and children than in men, their smaller and more mobile organs requiring its peculiar aid. Among the lower animals, it is present (at least in a fully developed condition) only in the Mammalia, but among them there is a remarkable exception in the Cetacea—they have it not, and they have no voice. In Birds, which have such great power and modulation of voice, the structure of the vocal organ and tube is different from that in man, and sufficient in itself to produce these qualities.

"The importance of the thyroid body must be admitted when it is shown to be necessary for the perfection of the voice, and hence of speech—that great and indispensable agent in the cultivating and advancing the highest faculties of man."

Dr. Bence Jones has communicated the following paper by Dr. W. Marcet,

ON THE IMMEDIATE PRINCIPLES OF HUMAN EXCREMENTS IN THE HEALTHY STATE.

In a previous paper I had the honour of communicating to the Royal Society the results of a first series of investigations on the immediate principles of the fæces of man and animals; since then I have continued my researches on human excrements, being most ably seconded by my assistant, Mr. Frederick Dupré, Ph.D.

The new results obtained were the following:—

1. *Margarate of lime*, *phosphate of lime*, and *margarate of magnesia* were discovered to be immediate principles of human evacuations.

2. I found a new method for obtaining excretine, and its chemical formula has been established.

3. The fact that vegetable food induces the presence of margaric acid in excrements has been confirmed.

4. The existence of a comparatively large quantity of cholesterine in the spleen, which I had mentioned before as probable, has been confirmed.

When human fæces are exhausted with boiling alcohol, the fluid being rapidly strained through a cloth, a clear extract is obtained, which, in cooling, yields a deposit; this substance being collected on a filter, is partly soluble in boiling alcohol, and there remains undissolved a residue insoluble in ether and alcohol. The residue in question being boiled with a solution of potash, dissolves almost entirely, and the addition of hydrochloric acid induces the formation of a precipitate in the solution. On examining this precipitate, it was found to consist of a crystallizable substance fusing at 60° Cent.; its structure and other properties were precisely those of *margaric acid*.

The acid filtrate contained *phosphoric acid* and *lime*. From several quantitative analyses, I concluded that there was more lime than is required to combine with the phosphoric acid in the form of the neutral phosphate, the excess of lime being exactly that which was necessary to convert the margaric acid into a neutral margarate of lime, $C_{34}\ H_{33} + O_3CaO$. Consequently it followed that the three substances existed in the form of *margarate of lime* and *phosphate of lime* as immediate principles of human fæces.

The alcoholic filtrate from the deposit being allowed to stand for twenty-four hours, deposited another substance, of a nearly white appearance, and which proved to be *margarate of magnesia*.

The peculiar action of a vegetable diet on human fæces was investigated by means of experiments undertaken upon myself, when I observed that an entirely vegetable diet was attended with the formation of a large quantity of margaric acid in the excrements,—most probably not in the form of a margarate, but in the free state, inasmuch as it was obtained from the decomposition, with hydrochloric acid, of the precipitate induced by adding milk of lime to the cold and clear alcoholic extract of fæces, after the separation of the above-described deposits.

In the month of December 1855, I had an opportunity of noticing that during a cold night, when the temperature falls

below the freezing point, *exeretine* crystallizes readily and in large quantity in the clear alcoholic extract of fæces; this method I employed as often as possible, to prepare enough exeretine for its chemical analysis; but the cold weather not lasting long enough, and this season having been remarkably mild, I was compelled to adopt a modification of the process by milk of lime, described in my former communication.

Having prepared a sufficient quantity of excretine partly by the action of cold, and partly by means of milk of lime, the chemical composition of this substance was now determined. A qualitative analysis showed it to consist of carbon, hydrogen, sulphur and oxygen (a); there was no water of crystallization present. Oxide of copper was employed at first for the combustions, but they were subsequently undertaken with chromate of lead, on account of the large proportion of carbon that excretine contains; no substance having been found to combine with it, its atomic composition was calculated from the assumption that one equivalent contained one equivalent of sulphur; and the following formula was obtained:—

78 eq. Carbon.....	468
78 eq. Hydrogen	78
1 eq. Sulphur	16
2 eq. Oxygen	16
Atomic weight of Excretine	578

In my former communication I had stated that when the tissue of the spleen is submitted to a process of analysis similar to that adopted for the extraction of excretine, a substance closely allied to cholesterine is obtained. This subject being one of great importance in a physiological point of view, I have resumed the investigation, and placed beyond doubt that this substance is really *cholesterine*. Its presence in the spleen is evidently independent of that which might exist in the blood retained by this organ after death. Is it that the spleen secretes cholesterine? This can only be determined by actual experiment; but it is very remarkable that a part of the blood which is supplied to the liver should come directly from an organ containing large quantities of a substance known to enter into the composition of the bile.

(a) In my former communication I had erroneously stated that exeretine contained nitrogen, which resulted from my not having been able to prepare a sufficiently large quantity of the substance; and, moreover, it might not have been perfectly pure.

OPENING OF THE MEDICAL SESSION.

INTRODUCTORY LECTURES.

LIVERPOOL ROYAL INFIRMARY SCHOOL OF MEDICINE.

The Introductory Lecture at this School was delivered by Dr. A. T. H. Waters, who chose for his subject "Some of the more important points in connexion with the rise and progress of our art." Tracing the history of medicine from the earliest records, he gave a series of most able sketches of the physicians of olden time, and then took a rapid glance at improvements effected during the present century. He concluded by the following excellent advice to students:—

"On you, gentlemen, will hereafter devolve the duty of maintaining the honour and dignity of your profession, and contributing to its advancement. Let me beseech you to take no mean or grovelling view of your calling; remember that to you will be committed the lives of your fellow-creatures; and as you would not have your thoughts hereafter embittered by the reflection that to your ignorance some have been sacrificed, so let me entreat you to work, to make the acquirements of professional knowledge the main business of your life, to give up idleness from this day forwards; but, not forgetting the motto about 'all work and no play,' so to regulate the employment of your time, as to preserve a healthy physical condition, which is essential to the proper development of your mental faculties. Be not dismayed by the task that lies before you; I can easily understand your feeling somewhat overwhelmed, when you contemplate the different subjects you have to study. If it be true, and it undoubtedly is, that a life-time is not sufficient for the mastery of any one of them, what, you may ask, can you expect to do in the few short years you have to spend here? You can do much by earnest and well-directed labour; you can gain that amount of knowledge which will make you, not skilful chemists or botanists, nor yet profound anatomists or physiologists, but sound practitioners of medicine. Take each subject as it presents itself to you in the curricula of the Examining Boards, and give it your attention, so as to keep pace with your lecturer, by reading some standard work which he will recommend to you. Remember that you are here to learn the principles that are to guide you in the treatment of disease, and if you are well grounded in those principles you may be safely left to the application of them to individual cases. You will meet with difficulties, but do not fear them; that man must have a poor mind indeed who would shrink from difficulties. Attack them boldly, and they will disappear. No step in life is more difficult than the next; every advance you make brings you nearer to your goal; every difficulty you overcome is a victory achieved; it smoothes the path that lies before you, and brings with it its own reward. Cultivate habits of observation, and do not rest satisfied with hearing and reading about facts, but endeavour to make them out for yourselves. Make them your own. One fact mastered by observation is worth fifty otherwise acquired. Upon your powers of observation and correct appreciation of facts your future success as practitioners of medicine will depend. Do not torment yourselves with what often hangs like a millstone over the heads of Medical students, 'the terrors of the Examining Boards.' Learn your profession, and you will gain your diploma; and you will have no necessity whatever to cram yourselves during a few months, in such a manner as seriously to interfere with your intellectual and physical digestion. Remember that your examination is the means, and not the end, and that when you shall have obtained your licence to practise you must still remain the student in medicine. I believe, gentlemen, it matters not much where you study your profession, but I believe it is of essential importance how you study it. You must study in the spirit of earnest inquiry; you must seek knowledge for her own sake, trusting to time to make it of practical use. It is not to be expected that during the time you are attending at the schools you can examine into the truth of all that is put before you; you must accept a great deal on the faith of those who are your teachers, whose duty it is to give you not only their own opinions, but those also of the great masters of our profession. You must not, however, become the blind followers of any man, uninquring observers of perennial custom or antiquated routine. Take an enlarged view of the subjects you have to learn. Endeavour to grasp great principles; endeavour to lay a foundation, on which to build a firm and lofty superstructure. This will secure you from being led astray, either by the sophistry of the mere theorist, or the ignorance of the pure empiric. Emulate the example of those great men, some of whom I have mentioned to you to-day, and let a laudable ambition incite you to follow in their steps. Be not satisfied with simply learning the routine duties of the profession, or of mastering that which is already known, but strike out into some path of inquiry for yourselves, that whereas you are now learners, reaping the fruit of other men's labours, you may hereafter add your share to the improvement of your profession, and become its teachers. But to accomplish this you must work; it is this, and this alone, which will raise you above the level of mediocrity. Nothing truly great in science or art has ever been accomplished without labour. Genius without it is useless, and with it mediocrity can produce great results. What are those works of art, which we contemplate with admiration, but the monuments of industry? Whence proceed the great improvements which mark the present age, but from the labours and investigations of hard working men? To whom are we indebted for the advances in our own profession, but to those who have patiently and perseveringly investigated the processes of nature, who have worked with their minds, and made their senses subservient to them? What was it that raised the reputation of Hunter, and enabled him to speak with power and truth of the phenomena of health and disease, but his untiring labour and patient research? And if ever the name of Hunter shall be forgotten in connexion with the progress of Surgery, it will still be remembered in connexion with those results of his labours which our Royal College

preserves. Gentlemen, you have chosen a profession which is often called an ennobling one; but rest assured it is not so much the profession itself, as the spirit in which it is pursued, which is capable of elevating your thoughts or refining your feelings. If you possess the true nobility of mind, and pursue your profession in the spirit which animated a Harvey, a Hunter, or a Jenner, the practice of medicine is capable of affording you a gratification as intense, a joy as pure, as any other calling can afford; and in the manner in which it will administer to the higher and holier feeling of your nature must be your reward: not in the accumulation of wealth, or the receipt of honours; for few indeed are the members of our profession who amass the former, and fewer still are those who attain the latter."

MEDICAL NEWS.

Royal College of Surgeons.—The following members of the College, having been elected Fellows at previous meetings of the Council, were admitted as such on the 8th instant:—

Bunce, John Strudwicke, Woodford.
Charles, Thomas, Sydney.
Chesshire, Edwin, Birmingham.
Gregory, John, Sunderland.
Holman, Henry Martin, Hurstpierpoint.
Isbill, Warren John, Stonehouse, Devon.
Kinsey, Robert Bancroft, H.E.I.C.S., Bengal.
Owen, Edwin Robert, Oxford.
Ransom, Thomas William, Darlaston.
Robinson, Charles, Edgeware.
Rowland, Rowland, Strata Florida, Cardiganshire.
Russell, William Alexander, St. Alban's.
Wilson, Walter, Burton-crescent.

At the same meeting of the Court, Messrs. John Mortlock Tronson, of Her Majesty's ship Wellington, and William Jarrett Lewis, of Haslar Hospital, passed their examinations as naval surgeons. These gentlemen had previously been admitted members of the College, their diplomas bearing date respectively August 6, 1852, and May 15, 1854.

Apothecaries' Hall.—Names of gentlemen who passed their examination in the Science and Practice of Medicine, and received Certificates to Practise, on October 15:—

Alcock, John, Coleridge, Stafford.
Biddle, Henry Cooper, Upper Edmonton.
Davis, William Farquhar, Army.
Muskett, Joseph James, Holt, Norfolk.
Radley, William Hepworth, Doncaster.
Rayner, Thomas, Birstal, near Leeds.

DEATHS.

Hainworth.—Oct. 9, after a long and painful illness, Mr. Hainworth, L.S.A. 1821, of Crediton, aged 58.

The following Medical Officers perished at Cawnpore:—Dr. Newenham of the 1st Native Infantry, killed; Dr. Collyer of the 53rd, died of fever; Dr. Garbett of the Staff, died of fever; Dr. Allen, Dr. Harris, Dr. Bowling, and Dr. Boyes were killed. Dr. Harris was wounded with two balls, and then addressed the rebels:—"Shoot me or kill me; my countrymen will revenge my death before long." Two Sowars then cut him down, and he died. The wife and children of Dr. Newenham, Mrs. Allen, Mrs. Harris, Mrs. Bowling and child, and Mrs. Boyes have also perished.

APPOINTMENT.

The chair of Clinical Medicine in the Royal Infirmary of Glasgow, lately vacant, has been filled by the re-election of Dr. J. A. Easton, Professor of Materia Medica in the Glasgow University. The duties of Clinical teacher, of all others bring out the true knowledge of the Physician; and in placing once more in the Clinical chair an old and tried officer, whose instruction is as fascinating as it is sound, the Glasgow Infirmary authorities have consulted their own as well as their students' interests.

TESTIMONIAL.

Mr. William Cooper, surgeon, of Bury St. Edmund's, has during the present week been presented, by some of his former patients, with a handsome silver salver and an elegant timepiece, bearing the following inscription:—"This salver, with a handsome clock, was presented by his patients to William Cooper, Esq., in token of the high esteem in which he was held as a medical practitioner and sincere friend. Anno Domini 1857."

Society for Relief of Widows and Orphans of Medical Men in London and its Vicinity.—A half-yearly General Meeting of the Members of this Society was held on the 14th instant, D. Henry Walne, Esq. in the chair. After reading the minutes of the several transactions during the past half-year, the members unanimously passed a resolution approving of the proceedings of the Court of Directors relative to the decease of the late lamented Sir Charles Mansfield Clarke, Bart., M.D., F.R,S., the President of the Society since the year 1844: and further expressing their own deep sense of the great loss which the Society, on the one part, and the Profession and the public on the other, had sustained by his removal to another world. Sir Charles's incessant exertions to promote the welfare of the Society, his skill in his professional career, and his great amiability and moral excellence were severally dwelt upon; and it was determined that the resolution should be published in the Times newspaper. A new form of law was read a first time, setting forth, in memory of the munificent legacy of 5000*l.* duty free, bequeathed by the late Thomas Copeland, Esq., a scheme for granting extra relief in certain cases of grievous bodily or mental affliction. The following Officers and Directors were elected for the ensuing twelvemonth, viz.:—*President.*—Thomas Arthur Stone, Esq.—*Vice-Presidents.*—Martin Ware, Esq.; Everard A. Brande, Esq.; John Nussey, Esq.; Sir J. M'Grigor, Bart., M.D., K.C.B., K.C.T.S.; Sir B. C. Brodie, Bart., F.R.S.; Peter M. Latham, M.D.; John Bacot, Esq.; Thomas Turner, M.D.; Benjamin Travers, Esq., F.R.S; D. Henry Walne, Esq.; A. J. Sutherland, M.D.; Edward Tegart, Esq.—*Treasurers.*—John Miles, Esq.; John Clarke, M.D. (Acting); James T. Ware Esq.—*Directors.*—Archibald Billing, M.D.; George Beaman, Esq.; John Propert, Esq.; Henry Blenkarne, Esq.; Richard L. Thorn, Esq.; C. J. B. Aldis, M.D.; G. J. Squibb, Esq.; Henry Combe, Esq.; A. M. Randall, Esq.; H. Jeaffreson, M.D.; John Hilton, Esq.; Henry Oldham, M.D.; Richard S. Eyles, Esq.; William Self, Esq.; Henry Sterry, Esq.; G. Hamilton Roe, M.D.; Harvey K. Owen, Esq.; Robert B. Todd, M.D., F.R.S.; George Burrows, M.D. F.R.S.; Edgar Barker, Esq.; William Cathrow, Esq.; James Paget, Esq., F.R.S.; John Adams, Esq.; Frederick J. Farre, M.D. It was reported that the late President had bequeathed 500*l.* to the Society. The grants for relief by this Society amount to about 1700*l.* a year, yet out of nearly 2500 members of the Profession eligible to become members of the Society, some 300 only are so. Thus the Society's power of doing good is very much limited, while destitute widows and orphans of our deceased professional brethren abound in all directions. But for them this Society exists in vain, because their deceased Husbands or Fathers declined to subscribe two guineas a year. This is a fact deeply to be lamented, for the books of the Society show that about one in seven of its members, deceased and withdrawn, (or one in five of the deceased only,) leaves a widow or a whole family dependent upon the Society.

King and Queen's College of Physicians in Ireland.—At the annual meeting of the College, held on the 19th of October, St. Luke's day having this year fallen upon Sunday, Sir Henry Marsh, Bart. was elected president, in the room of Dr. John Mollan, who has held the office for the last two years. The present is the third occasion on which Sir Henry has been chosen to fill the chair of the College. Dr. Aquilla Smith was appointed vice-president, Drs. A. Smith, Henry Kennedy, John Moore Neligan, and Robert Mayne were elected censors. The other officers elected were. Treasurer—Dr. Henry Law Dwyer. Registrar—Dr. William Edward Steele. Librarian—Dr. George A. Kennedy. Professor of Midwifery—Dr. Fleetwood Churchill. Professor of Medical Jurisprudence—Dr. Thomas Brady. Examiners in Midwifery—Dr. William O'B. Adams, Dr. H. Law Dwyer, Dr. John Ringland. Inspeciors of Apothecaries' Shops—The Censors.

Congenital Fissure of the Sternum.—It will be in the recollection of many of the profession, that about two

years ago there was a person in London who presented this malformation, so interesting in a physiological point of view on account of the action of the heart being perceptible through the integuments which form the only separation between the heart and the observer. E. A. G——x, we are informed, is again in London, and residing at No. 6, Surrey street, Strand, having visited all the principal places in France, Belgium, Germany, Holland, Spain, and Russia. He has been examined by the most eminent in the profession, who have written their opinions of his case in the now valuable album of autographs that he carries with him.

Post-mortem Examinations at the Vienna General Hospital.—The following is a tabular view of the post-mortems performed under the direction of Professor Rokitansky in 1855. It is interesting as exhibiting the proportions of the cases that come under the cognizance of this greatest of the masters of the scalpel.

Disease.	Cases.	Disease.	Cases.
Meningitis	24	Hepar granulatum	10
Hæmorrhagia cerebri	27	Atrophia hepatis acuta	1
Encephalitis	16	Nephritis	56
Atrophia cerebri	4	Morbus Brightii renum	17
Hydrocephalus intern.	19	Urocystitis	6
Tetanus	2	Suppuratio et gangræna textus cellulosi	26
Parotitis et œdema glottidis	6	Caries et necrosis ossium.	33
Pneumonia	140	Inflammatio articulationum	5
Gangræna pulmonum	8	Morbi puerperales	44
Emphysema pulmonum	12	Typhus	139
Pleuritis.	56	Tuberculosis	255
Bronchitis	8	Cholera	94
Bronchiectasis	2	Carcinoma	71
Pericarditis	10	Anæmia et scorbutus	41
Myocarditis	1	Pyæmia	19
Hypertrophia et dilatatio cordis	53	Marasmus	15
Aneurysma aortæ	2	Dissolutio sanguinis post variolam	1
Peritonitis	45	Monstrum	1
Ulcus perforans ventriculi	3		
Dysenteria	41	Total	1313

Cow-Pock in Algeria.—The presence of cow-pox on the udders of two cows has been recently observed at Pelissier in Oran, and M. Alquié, the Medical Inspector, has inoculated two children with perfect success from this source. A premium of 250 francs has been divided between the farmer who discovered, and the doctor who verified the eruption. This is the second time in less than a year that cow-pox has been observed in Algeria.

Professorship of Palæontology at the Museum d'Histoire Naturelle.—The Academy of Sciences being requested by the French Government to nominate three candidates for this important chair, has forwarded the names of M. Archiac in the first line, and MM. Bayle and Gervais *ex æquo* in the second line. The Emperor wrote to offer the chair to M. Agassiz, but he refused to leave America.

The Case of Alleged Abortion at Tunbridge.—At the adjourned hearing of this case the following Medical evidence was given.—The former evidence of Dr. Cook of London having been read, in examination he added that there was a narcotic which would operate as the girl had said. She might recover sufficient after such an operation as described as to be able to walk home half a mile. Cross-examined—I am a member of the College of Physicians in London, although my name is not on the list at the present time. They leave the names out of those who live in London unless a certain fee is paid.—What narcotic could have made the girl insensible in five minutes, and the effect of which would go off as she described in half an hour? I don't know what *cocculus indicus* might do. I don't want to know what anything might do. Is it not utterly incredible? No. I think it is not at all improbable that it was what was used among London thieves called "hocus," into the composition of which it is generally suppposed *cocculus indicus* goes to a considerable extent, that might have the effect spoken of.—I don't know what London thieves use nor what it is supposed they use? The draught taken by the prosecutrix might have been a mixture of chloroform and laudanum, which could be taken in solution, and the effect of which would be complete stupefaction. If it was taken with some stimulant the person might recover, as stated. There was nothing in the girl's evidence to lead me to believe but that *cocculus indicus* with laudanum was used. It was suggested to me that the *fœtus* had been removed by instruments. I think it could be done under the effects of *cocculus indicus* and laudanum, with a pair of long dressing forceps. Pinchers, catheters, or sounds would not do it. It would not be a very frightful operation, but it would be a dangerous one. It would depend upon the *os uteri*, and whether the individual had aborted before. It would be more dangerous the first time I cannot tell how it was done. It is my belief that the girl had aborted from the signs she stated. Puncturing alone would not be effectual at the time. It might have come away afterwards. My examination was made four months after the operation is alleged to have been performed. Chloroform and a tincture of opium might be used in a liquid state. The girl told me what she has said to-day that she did tell me.—Dr. J. C. W. Lever, physician accoucheur at Guy's Hospital: I have been at the Hospital 26 years, and have had very considerable practice as an accoucheur. I have 200 *times performed the operation of removing the fœtus*, but not criminally (a laugh.) I believe chloroform with opium might have produced the effects detailed. She would be able to walk home as stated. Very frequently I combine the two things for certain cases, and have known persons to recover quickly—within a quarter of an hour. I made an examination of the prosecutrix to-day, in the presence of Dr. Barnes. I have no doubt the girl has been delivered of a *fœtus, and that more than once.* As to the manner, there is no evidence as to any instrument having been used, but a clever Medical man could use an instrument without leaving any trace. Instruments may or may not have been used. I would defy any Medical man in the world to bring the *fœtus* away in half an hour. Forceps would do mischief. A patient might be able to walk away after an operation as detailed. Cross-examined: My opinion is, that by puncturing the *liquor amnii* was removed, and that what the French call an *accouchement faux* was the result. I have seen chloroform and opium produce ease from pain. I never use it in accouchements. It turns a woman into a vegetable: she lies stolid. I believe that the girl's evidence is perfectly true. The statement about the blood is consistent. Re-examined: A patient under a narcotic would lie on her back, as the prosecutrix has stated.—Dr. Robert Barnes, M.P.C.P., London, etc.: I have written a great deal on the diseases of the *placenta.*—Could a narcotic be presented to a person under the circumstances narrated by the prosecutrix, and she recover from the effects of it, so as to walk home in a short time afterwards, as stated? It is quite consistent with my experience. I examined the prosecutrix, and formed a decided opinion that she has been *enceinte.*—As a scientific man, can you go the full length of Dr. Lever's statement? No; but perhaps the difference may be reconciled on the ground that he has had a greater experience. I cannot say that she has aborted twice. I believe the *modus operandi* suggested by the girl's evidence is possible. Cross-examined: The more usual practice was to lay on their sides. Three-quarters of a glass of chloroform and opium would be one ounce, and would be dangerous. Chloroform had a burning kind of taste. All medicines for abortion were more or less dangerous. Chloroform and opium would produce insensibility to pain; but he had not produced insensibility by it.

VITAL STATISTICS OF LONDON.

Week ending Saturday, October 17, 1857.

BIRTHS.

Births of Boys, 936; Girls, 849; Total, 1785.
Average of 10 corresponding weeks, 1847-56, 1462·6.

DEATHS.

	Males.	Females.	Total.
Deaths during the week	507	496	1003
Average of the ten years 1847-56	..	..	1016
Average corrected to increased population	...	..	1118
Corrected average for corresponding week in ten years 1847-56	505·1	510·8	1015·9
Deaths of people above 90	0	0	0
Deaths in 13 General Hospitals	36	14	50

DEATHS IN SUB-DISTRICTS FROM EPIDEMICS.

	Population. 1851.	Measles.	Scarlatina	Hooping-Cough.	Diarrhœa.	Cholera.	Typhus.
West	376,427	4	13	5	4	..	11
North....	490,396	3	12	8	6	..	6
Central ..	393,256	9	11	1	6	..	10
East	485,522	4	6	5	9	4	18
South	616,635	1	7	8	14	..	9
Total..	2,362,236	21	49	27	39	4	54

DEATHS REGISTERED DURING THE WEEK.

Causes of Death.	In the Week ending Saturday, Oct. 17, 1857. Deaths of Persons. AT ALL AGES.	Under 20 Years of Age.	At 20 and under 40 Years of Age.	At 40 and under 60 Years of Age.	At 60 and under 80 Years of Age.	At 80 Years of Age and Upwards.	Averages of Temperature and Deaths in 10 Weeks.
Mean Temperature	Mean temp. 55°·2						50°·4
All Causes	1003	537	141	146	141	38	1015·9
Specified Causes	1002	536	141	146	141	38	1007·5
Diseases:—							
1. Zymotic Class	240	187	26	15	9	3	292·3
2. Dropsy, Cancer, and others of uncertain seat	46	4	8	16	15	3	45·5
3. Tubercular Class	171	61	61	38	11	..	167·0
4. Of Brain, Nerves, etc. ..	93	42	12	11	23	5	101·3
5. Of Heart, etc.	32	5	3	10	14	..	35·9
6. Of Respiratory Organs ..	183	122	6	25	25	5	142·4
7. Of Digestive Organs ..	59	25	9	14	11	..	62·1
8. Of Kidneys, etc.	17	2	4	5	4	2	12·6
9. Of Uterus; viz. — Puerperal Disease, etc. ..	7	1	3	2	1	..	7·8
10. Of Joints, Bones; viz.— Rheumatism, etc. ..	8	3	2	2	1	..	7·2
11. Of Skin, etc.	5	3	..	1	1	..	2·7
12. Malformations	2	2	..	..	..	..	3·7
13. Debility from Premature Birth, etc.	30	30	..	..	..	..	23·1
14. Atrophy	27	24	..	1	2	..	31·3
15. Age	41	..	..	..	21	20	40·7
16 Sudden	7	5	..	1	1	..	6·7
17. Violence, Privation, etc...	34	20	7	5	2	..	25.2
Causes not specified.. ..	1	1	..	..	..	..	8·4

METEOROLOGY.

From Observations at the Greenwich Observatory.

Mean height of barometer	29·915 in.
Mean temperature	55·2
Highest point of thermometer	67·7
Lowest point of thermometer	42·3
Mean dew-point temperature	53·3
General direction of wind	—
Whole amount of rain in the week	0·19
Amount of horizontal movement of air in the week ...	130 miles.

TO CORRESPONDENTS.

A Provincial Surgeon.—As Alice says, "We never said it was *possible*—we only said it was *true*."

Dr. Brown.—English Medical men wishing to practise in France must obtain a licence from the Faculty of Medicine granting the permission.

D. M.—No such translation would be a profitable speculation.

A Subscriber of Ten Years.—1. Lyell's Geology. 2. We know of no such work.

Dr. Stone's cases of Diaphragmatic Pleurisy shall appear in an early Number.

Mr. Green.—The term "General Practitioner" is not recognised in law. Our Correspondent would not be practising legally without the licence of the Hall.

Mr. Bryant's papers on the Injuries and Diseases of the Joints shall appear as soon as possible.

The Tunbridge Abortion Case.

Dr. Cooke has sent us a letter, and we publish what he says on the Medical facts of the case:—

"You wish, in your article, to know upon what grounds I stated that the prosecutrix had been pregnant once at least, that she had never gone her full time, and that the state of the parts was consistent with the use of instruments. Firstly, then, the girl's breasts were (are?) in such a state as I never met with except after impregnation. I allude to the dark colour of the areola, the developed condition of the follicles, and of the nipple generally. Secondly. The state of the os uteri, viz., a long, loose, transverse slit, with the posterior lip jagged, and altogether different from the mouth of a womb which had never contained a fœtus. I know, Sir, that each of these signs may be explained away if dealt with singly, but I assert that the aggregate is decisive. So at least Drs. Lever and Barnes must have thought. The next point is, How could I affirm that she had never gone her full time? I answer, from the signs I have mentioned not being *sufficiently* developed to indicate a child at term, and from the absence of any but faint traces of the white streaks on the breasts and abdomen, which usually remain for at least four months after delivery at nine months, and from the unruptured state of the fourchette. In reference to any other opinions, which were either absolutely denied or coarsely ridiculed, we now know that abortion has been procured in less than half an hour; that narcotics exist which have produced insensibility in a short time and for a limited period; that women have walked, danced, etc., with impunity immediately after abortion, whether natural or artificially induced, and that appearances of abortion are not always destroyed by time."

A Word of Warning.

TO THE EDITOR OF THE MEDICAL TIMES AND GAZETTE.

Sir,—On Saturday afternoon last, about three o'clock, a few minutes after the writer had driven from his door, a woman called in a great hurry to request him to visit a lady directly, who was about to be prematurely confined. While the servant sought for Professional cards, which the woman requested to have, she asked permission of the writer's little girl to go into his consulting-room, where she was left alone a few moments, and then, after she had given the address of the lady, went away. Upon inquiry the affair was found to be a hoax, so far as the existence of the patient was concerned. All that was real was the fact, soon discovered, of the writer's loss of a case of surgical instruments, taken from a library table by the woman, who it appears was a drunken as well as a very artful thief.

We do not insert notices of births or marriages in this Journal.

COMMUNICATIONS have been received from—

Professor Laycock; Dr. A. Taylor; Dr. Snow; Dr. J. R. Reynolds; Dr. Whitehead; Dr. M'William; Dr. Merriman; Mr. Fox; Dr. Pavey; Dr. Grailly Hewitt; Dr. Stone; Dr. Ogle; Mr. Chadwick; Mr. Grantham; Mr. Buzzard, Melbourne, Australia; Mr. Waugh; Mr. Hodgson; Mr. Warren; Mr. Maysmor; Mr. Liordet; Mr. Brownfield; Dr. Lees; Mr. Wood; Dr. Cheyne; Dr. Armstrong; Mr. M'Dermott; Mr. Carkett; Mr. Hart; Mr. Jones; Secretary General Board of Health; Mr. Sansom; Mr. Delves; Mr. W. O. M'Cheyne; Dr. J. Hooper; M. B.; Mr. R. Hordley; Mr. M'Grigor; Mr. J. Suckling; Dr. White; Dr. C. Ford; Mr. J. M'Bean; Mr. J. Gould; Mr. J. Moyle; Dr. Nevins; Dr. J. Desmond; Mr. C. Aldred; Mr. P. Roscow; Mr. C. Bateman; Mr. J. Atkinson; Dr. Cooke; Mr. Bryant; Mr. Chambers; Mr. Wills.

APPOINTMENTS FOR THE WEEK.

24. *Saturday (this day).*

Operations at St. Bartholomew's, 1½ p.m.; St. Thomas's, 1 p.m. King's, 2 p.m.; Charing Cross, 1 p.m.

Medical Society of London, 8 p.m.: Mr. Birkett will give some "Practical Illustrations of the Treatment of some cases of Injury to the Hand."

26. *Monday.*

Operations at the Royal Free Hospital, 1 p.m.; Metropolitan Free Hospital, 2 p.m.; Orthopædic Hospital, 3 p.m.

27. *Tuesday.*

Operations at Guy's, 1 p.m.; Westminster, 2 p.m.

28. *Wednesday.*

Operations at University College Hospital, 2 p.m.; St. Mary's, 1 p.m. Orthopædic Hospital, 3 p.m.

29. *Thursday.*

Operations at St. George's, 1 p.m.; Middlesex, 12½ p.m.; Central London Ophthalmic, 1 p.m.; London, 1½ p.m.

University College Medical Society, 8 p.m.: Mr. R. C. Drysdale will read a paper "On Syphilis."

Medical Society of King's College, London: Dr. Sturges will read a paper on "The Medical Treatment of Mental Diseases."

30. *Friday.*

Operations at the Moorfields Ophthalmic, 10 a.m.; Westminster Ophthalmic, 1½ p.m.; Great Northern, 2½ p.m.

EXPECTED OPERATIONS.

King's College Hospital.—The following operations will be performed at this Hospital to-day, Saturday.

Removal of melanotic tumour from groin; removal of necrosed bone from tibia; removal of ditto from femur, by Mr. Fergusson.

A New Discovery. — Mr. Howard,

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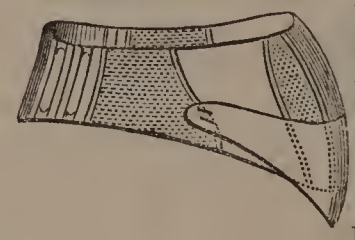

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ORIGINAL LECTURES.

LECTURE
ON
THE NERVOUS STRUCTURES
AND THE
SENSITIVE AND CONTRACTILE POWERS OF THE UTERUS.

BEING ONE OF THE LUMLEIAN LECTURES READ BEFORE THE

Royal College of Physicians.

By ROBERT LEE, M.D. F.R.S.

Mr. President,—From the sensitive and contractile powers of the uterus, Galen inferred that it must be supplied with nerves, but they are extremely small, he says, compared with the size of the organ. Vesalius stated in 1559, that small branches of nerves proceed to the neck of the uterus on each side, from the sacral nerves, and that the superior part of the uterus receives minute branches from the great sympathetic. In 1664, Willis described plexuses formed on each side of the uterus, bladder, and rectum, by the sympathetic and sacral nerves. In 1672, De Graaf published this engraving (showing it) of the nerves of the uterus, in which they are represented passing on each side from a single trunk into the posterior surface of the body, and fundus of the unimpregnated uterus, and ramifying like the branches of a tree. In 1765, Haller described the course of the spermatic nerves from the renal plexus to the ovaria, Fallopian tubes, and fundus of the unimpregnated uterus, and also the branches of the sympathetic and sacral nerves distributed to the os and cervix uteri. In 1783, J. G. Walter published this engraving (showing it), in which a few small filaments of nerves are represented passing into the lower part of the orifice and cervix of the unimpregnated uterus from the upper part of a plexus formed by the hypogastric and sacral nerves. The fundus and body have been represented covered with peritonæum, and the spermatic nerves have not been traced. Professor Walter published a treatise denying the muscularity of the uterus, and ascribing its contractile power during parturition to the contractions of the arteries. Dr. Baillie in alluding to this Treatise says, "I happened to see lately a uterus taken from a woman who died during delivery, when the placenta was still remaining, and the uterus had not contracted itself. I could observe distinctly on the outer surface, upon the edges of the uterus at the ligaments, longitudinal fibres running from the fundus to the cervix uteri. I also observed transverse or circular fibres surrounding the uterus at the line of separation between the fundus and the cervix uteri. Both appearances were as distinct as in any muscle whatever, only the fibres were not of a very red colour. Circular fibres can be distinctly seen on the outside, surrounding the origin of the Fallopian tubes. Besides, how could the contraction of arteries either give much assistance to the expulsion of the child, or contract so large a body as the uterus itself in so short a time after delivery."

Dr. Baillie deposited several preparations in the Museum of the College of Physicians, to illustrate the appearances presented by portions of the muscular walls of the gravid uterus. These preparations have been placed upon the table before you, and an examination of them will satisfy all who trust to the sense of sight, that the "appearances are as distinct as in any muscle whatever." But there are some microscopical anatomists who still deny that the uterus is a muscular organ; and not long ago in Regent-street I met one of these gentlemen, from whom I received a sharp rebuke, on employing in conversation the words, "muscular coat of the uterus." He asserted that it was not muscular, but fibrous, and ran into a long account of the microscopical appearances to justify his opinion which I could not follow, and cut short, abruptly, by inquiring if he had ever passed his hand into the uterus to turn a child, when it was in a state of active contraction.

Dr. William Hunter had long before Dr. Baillie given an elaborate description of the muscular fibres of the uterus. "The motion which is actually observed in the uterus of living women," he observes, "is involuntary and slow. It is commonly believed to be muscular motion, and the fibres peculiar to the substance of the uterus are believed to be muscles. In the quadruped, the cat particularly, and the rabbit, the muscular action or the peristaltic motion of the uterus is as evidently seen as that of the intestines, when the animal is opened immediately after death. In many parts, particularly of the internal surface of the uterus, these fibres have the same striking fasciculated appearance which we observe in common muscles; yet they are of a paler colour, and appear to me to be of a harder texture. When we know more of the nature of muscular fibres, we shall, perhaps, be able to account for this variety."

Professor Walter was led to conclude that the uterus was not a muscular organ, and that it was very scantily, if at all, supplied with nerves. Here, as has often occurred in physiology, there was a great retrograde movement, and very plainly opposed to experience and common sense. What could have been more reasonable and true to nature than the views which Dr. Parsons, a Fellow of this College, had expressed in the following words, more than forty years before this, in the Croonian Lectures on muscular motion, for the year 1744 and 1745?

"Whoever considers the offices and use of the uterus, will hardly hesitate to pronounce it a muscle with me. Besides which, the very structure of its substance from many observations prove it sufficiently, having discerned its interlaced muscular fibres as plainly as those of any other muscle in the body." "Thus is this wonderful phenomenon (labour) brought about by the muscular structure and mechanism of the uterus; and it may be securely affirmed, that if it was not a very muscle, this effect could not come to pass, no more than the blood could be driven from the ventricles of the heart, if it were not a muscle; or the urine from the bladder (without a muscular coat and detrusor muscle) which are forced to distend by the intrusion of urine from the ureters, till, by its repletion, the resistance becomes less at the orifice than in the detrusor."

None of the distinguished anatomists now referred to examined the nerves of the gravid uterus, or attempted to ascertain to what extent this great and powerful muscular organ was endowed with nervous structures; and if the few small filaments of nerves which had been traced into the unimpregnated uterus, underwent any corresponding change during pregnancy with the coats of the uterus.

In 1794, an Anatomical Description of the Human Gravid Uterus and its contents, by Dr. William Hunter, was published. "I cannot take upon me to say what change happens to the system of uterine nerves from utero-gestation," observes Dr. Hunter, "but I *suspect* them to be enlarged in some proportion as the vessels are. Upon this occasion, we profess only to give the anatomy of the gravid uterus, yet since t e descriptions of the nerves of the uterus which I have read seem to me unsatisfactory, I shall so far go beyond my subject as to describe the hypogastric nerves, such as they appeared to me in a female subject carefully dissected for that purpose." From this single dissection Dr. Hunter described the hypogastric nerve on each side passing behind the hypogastric vessels, and spreading out in branches like the portio dura of the seventh pair, or like the sticks of a fan, with many communications over the whole side of the unimpregnated uterus and vagina. Dr. Hunter never having made a dissection, or examined the nerves of the gravid uterus, could not assert positively what changes the system of uterine nerves underwent from utero-gestation, but he suspected them to be en-

larged in some proportion as the vessels are. Dr. Hunter's plates of the gravid uterus contain no representation of the uterine nerves, either in the unimpregnated or gravid states, and in the Museum at Glasgow there is no preparation of the nerves of the uterus; and at the present time, exeept the preparations now placed upon the table before you, there does not exist in Great Britain a single dissection of the nerves either of the unimpregnated or the gravid uterus.

Mr. John Hunter denied that the nerves of the uterus ever enlarged during pregnaney in the smallest degree. "The uterus in the time of pregnaney," he says, "inereases in substance and size probably fifty times beyond what it naturally is, and yet we find that the nerves of this part are not in the smallest degree inereased. This shows that the brain and nerves have nothing to do with the aetion of a part, while the vessels which are evident inerease in size; if the same had taken plaee with the nerves, we should have reasoned from analogy." There is no evidenee to prove that Mr. Hunter ever examined the nerves either of the unimpregnated or gravid uterus, or that he had any ground for this extraordinary assertion.

In 1822, Professor Tiedemann published a deseription of the gravid uterus with two engravings, whieh are now exhibited. In the first plate the spermatie nerves as described by Haller and Dr. William Hunter are represented on both sides aeeompanying the spermatie arteries to the ovaria. The uterine arteries are seen running along the posterior surfaee of the uterus, anastomosing near the ovaries with the spermatic arteries. The uterine nerves proeeeding from the hypogastrie plexuses are shown aeeompanying the uterine artery, and spreading out on the posterior surface of the uterus, like the branches of a tree, nearly in the same manner as represented by De Graaf. The fundus and body of the uterus down to a line drawn across, a little lower than the ovaria, are represented eovered with peritonæum. In the seeond plate, the same parts of the uterus are represented invested with peritonæum. Some small branches proceeding from the superior part of the left hypogastrie plexus are exhibited aecompanying the uterine artery, and spreading in an arborescent form on the left side of the lower part of the uterus. Several small ganglia are delineated on the nerves proceeding to the uterus, bladder, and vagina, from the hypogastrie and spinal nerves.

Professor Tiedemann says, "Ex inferiore parte plexus hypogastriei lateralis plures rami ad cervieem uteri et vaginam descendunt, ibique, eum ramis anterioribus nervi saeralis tertii et quarti conjuncti magnum eonstituunt plexum quem hypogastrieum lateralem inferiorem nominc. Nervi in plexum ingressi in vera et genuina ganglia intumescunt itaque plexum ganglione componunt." From Professor Tiedemann's splendid work, which was dedieated to the Royal Soeiety of London, it might justly be inferred that the human gravid uterus is more sparingly supplied with nerves than any other organ in the human body.

In 1823, Professor Lobstein stated that the uterus before and after eonception had a very seanty supply of nerves: "Rarissime in uteri substantiam tum vaeui, tum gravidi, sese immettere videntur nervorum sarculi."

In 1829, Professor Osiander affirmed that the nerves of the human uterus had never been seen either by himself or by any other anatomist, and that he had been deceived by the authority of scientific persons when he stated that nerves were spread over the whole uterus. "Although it is very probable that the uterus possesses nerves, still," he says, "hitherto they have been very unsatisfaetorily demonstrated, either as regards their number or their nature. I, myself, like others deeeived by the authority of more scientific persons, stated that nerves were spread over the whole of the human uterus, sinee I believed that more skilful anatomists than myself had really seen them, for example, Walter, who speaks so eonfidently of nerves whieh aeeompany the larger arteries. But I know now that they have not been seen by others any more than by myself, and I ean only assume that the uterus as an irritable organ must possess nerves. But I have not seen, and it eertainly does not possess any nerves that are easily demonstrable by the sealpel, still less any large branches. But what we have not yet seen, may subsequently be discovered, and those who have suffieient opportunities and the requisite dexterity to examine pregnant and unimpregnated uteri, should zealously endeavour by repeated dissections to diseover the uterine nerves, and especially to trace the lumbar and saeral nerves towards the uterus, as it is probable if nerves go to the uterus, they, like the arteries, are much larger during pregnaney than those in the unimpregnated eondition."

Sueh was the unsatisfaetory state of our knowledge of the anatomy of the nervous system of the unimpregnated and gravid uterus when I aeeidentally made the following observation eighteen years ago.

On the 8th of April, 1838, while engaged in disseeting this gravid uterus of seven months (exhibiting the preparation), whieh had been some time immersed in alcohol, and all the veins of whieh had been filled with yellow injeetion, I observed this trunk, whieh appeared to be of a large nerve proeeeding upward from the eervix to the body of the uterus, with the right uterine vein, and sending off braneles in its eourse to the posterior surface of the uterus, some of whieh aeeompanied the veins and others appeared to be inserted into the peritonæum. A broad band, resembling a plexus of nerves, was seen extending across the posterior surface of the uterus, and eovering the nerve about midway from the fundus to the eervix. On the left side a large plexus of nerves was seen surrounding the uterine veins, where they were about to enter the hypogastric vein. From this plexus three large trunks of nerves, which inereased in size as they aseended to the fundus uteri, were seen aecompanying the uterine vein. From the nerve situated on the posterior surfaee of the vein, numerous filaments passed off towards the mesial line as on the right side, some following the smaller veins on the posterior surfaee of the uterus, and others beeoming intimately adherent to the peritonæum. The largest of these nerves aeeompanying the uterine vein, was traeed as high as the part where the Fallopian tube enters the uterus, and there it divided into numerous filaments which plunged deep into the museular eoat of the uterus along with the vein. A large fasciculated band, like a plexus of nerves, was also seen on the left side, under the peritonæum, crossing the body of the uterus; and several braneles, apparently nervous, proceeding from this band were distinctly eontinuous with some of the smaller braneles of nerves accompanying the uterine veins. The preparation of the parts thus described was plaeed in the museum of St. George's Hospital on the 1st of Oetober, 1838, from whenee it has never been removed till a few days ago, when it was brought to the theatre of the College of Physicians, for the purpose of being submitted to the most rigorous examination by all now present. No drawing has been made from it, but all the structures now deseribed can clearly be seen with the naked eye, and still better with this magnifier.

Before making this observation I had been accustomed to speak of the pains of labour, of uterine eontractions, and sympathies, without attempting to explain their causes. In the operation of turning the child in cases of arm presentation I had often experienced the prodigious muscular foree which the uterus exerted, and witnessed in eases of protraeted labour how long its contractions might be sustained without exhaustion, far surpassing all voluntary muscles, but I eannot recollect ever having put this question to myself, or having had it proposed to me by any other individual. From what souree does the uterus derive the great sensibility and the contractile power whieh it displays in the process of parturition, and how does the uterus during pregnancy, delivery, and in the puerperal state more especially, exert such an extraordinary influence over the brain and every part of the nervous system? When the ganglionie nervous plexuses under the peritonæum of the gravid uterus were first observed by me, I was engaged in examining the veins of the uterus, and traeing them in their eourse to the plaeenta, and was not thinking about the source of the sensitive and contractile powers of the organ. In eomparing this dissection with the plates of Professor Tiedemann which you have just examined, it immediately became eertain that a great system of ganglia and nerves existed in the uterus—great nervous eentres—which had never before been seen, and had never been described by any anatomist, and that the whole physiology and pathology of the uterus eould not be otherwise explained if such a system of ganglia and nerves did not exist. With a knowledge of these nervous structures, many phenomena before inexplicable were easily understood.

In the removal of this uterus it is seen that all the blood-vessels and nerves had been divided close to the eervix, so that it was impossible to traee these plexuses under the peritonæum, or the body and trunks, on the sides of the uterus, back to the great sympathetie and saeral nerves. The con-

tinuity was therefore wanting in this preparation, and until actual continuity was demonstrated to exist between the spermatic, hypogastric, and sacral nerves, and the plexuses which had been discovered on the body of the uterus, it could not be considered as established beyond the possibility of doubt that these plexuses were ganglionic nervous plexuses or ganglions and nerves. I resolved when another opportunity should present to set out from the great sympathetic and sacral nerves, and follow them to the gravid uterus, that the requisite proof might be supplied, and the truth established beyond contradiction.

On the 18th of December, 1838, a woman in the sixth month of pregnancy died in St. George's Hospital, a few hours after the fœtus and its appendages had been expelled. The uterus was removed, with all its blood-vessels and nerves remaining connected with it, and the nerves were carefully traced from their origins to the different parts of the uterus, while the preparation was covered with alcohol. This dissecting lens magnifying six diameters was constantly employed, by which it became impossible that the nervous structure could be mistaken for any other structure.

If you look at this preparation which I now exhibit, you will see that behind the uterus the aortic plexus of the great sympathetic (described by Dr. W. Hunter, and delineated by Tiedemann), divides into the right and left hypogastric nerves. These hypogastric nerves are seen subdividing into a number of branches to form the right and left hypogastric plexus. Each of these plexuses, after giving off several branches to the ureter, rectum and uterus, is seen descending to the side of the neck of the uterus, and there terminating in a large oblong solid ganglion. I am anxious that you should examine this part of the preparation, and the drawing, with the closest attention, and with the assistance of this large magnifying glass, and see distinctly the aortic plexus, and the two hypogastric nerves and plexuses passing down to the sides of the neck of the uterus, and terminating in these ganglia, which are now usually called the hypogastric or utero-cervical ganglia, and which may be looked upon as the principal centres or keys of the whole nervous system of the uterus, bladder, vagina and rectum.

The left hypogastric plexus, you observe, first sends off from its upper and anterior part some small branches to the ureter. About midway between the aortic plexus and the ganglion at the cervix, the hypogastric plexus sends off several considerable branches directly into the upper part of the cervix uteri, which spread out under the peritonæum of the body of the uterus. The hypogastric plexus then gives off a large branch, which passes between the ureter and uterus, to the trunks of the uterine veins and artery. This branch enlarges and becomes thin and broad as it approaches these vessels, and terminates in a great plexus of nerves, which completely encircles them. This plexus is joined below by several branches, which proceed from the anterior and superior part of the ganglion, and which passes on the outside of the ureter to the plexus around the vessels. From the inner surface of the ganglion, several branches go to this plexus, which run on the inside of the ureter, so that a loop of nerves surrounds the ureter, as well as the uterine artery and vein. From the plexus surrounding the vessels, you will observe three large trunks of nerves proceeding upwards with the vein to the upper part of the uterus, enlarging as they ascend. The posterior branch sends off in its course smaller branches, which accompany the ramifications of the uterine vein, on the posterior surface of the uterus, and spread out upon the inner surface of the peritonæum. Passing upwards beyond the junction of the spermatic with the uterine vein, and running between the peritonæum and a great plexus situated on the body of the uterus, it spreads out into a web of thin broad branches and slender filaments, some of which are inserted into them muscular coat and peritonæum, and others follow the veins and arteries to the fundus uteri, and pass with the vessels into the muscular coat of the organ.

The middle and anterior branches are seen clearly to adhere to the uterine vein as they ascend and form around it several plexuses which invest the vein. From these plexuses branches are sent off to the anterior surface of the uterus. These nerves ascend and closely unite with a great transverse plexus on the body of the uterus. This great transverse plexus on the left side arises near the mesial line on the back part of the uterus, midway between the fundus and cervix, from a mass of fibres which adhere so firmly both to the peritonæum and muscular coat, that it is difficult precisely to determine their arrangement. From these fibres the plexus proceeds across the uterus in the form of a thin web to the point where the spermatic vein is leaving the uterus. After closely uniting with the nerves accompanying the uterine vessels, this plexus proceeds outwards to the round ligament, becoming less firmly adherent to the peritonæum, where it unites with a plexus on the anterior surface of the uterus, and spreads out into a great web under the peritonæum. This plexus is loosely attached through its whole course to the subjacent muscular coat by soft cellular membrane.

From the second, third and fourth sacral nerves, but chiefly from the third, branches are seen passing into the posterior border of the ganglion at the cervix, and are lost in its mass. From the inner surface of the ganglion, numerous small white soft nerves are given off to the neck of the uterus, some of which ramify under the peritonæum, and others pass deep into the muscular coat. From the anterior or inferior borders of the ganglion, many large nerves are given off to the bladder and vagina, and from its posterior margin to the rectum.

On the left side the spermatic nerves are seen forming a plexus around the spermatic artery for about two inches from its origin. A small branch is then sent off from the spermatic artery to the ureter, accompanied with some filaments of nerves. The spermatic artery then passes down between the spermatic veins, and some of the nerves leaving the artery get on the outside of the veins, and numerous filaments are observed ramifying on the coats of the veins, and also upon the absorbents, and forming loops around them. Branches of nerves are then sent to the Fallopian tubes, and to the ovarium, at the base of which a great plexus is formed. The spermatic nerves then appear to enlarge as they proceed towards the uterus along with the artery and veins, and in their course filaments are sent to the peritonæum, and with the veins of the ureter. Some filaments pass down along with the spermatic artery, to anastomose with the nerves accompanying the uterine arteries and veins, and other branches pass to the round ligament and to the great plexus on the body of the uterus.

On the right side of the uterus the distribution of the hypogastric, spermatic, and sacral nerves does not differ essentially from that now described as seen on the left side. The form and situation of the great plexuses on the body of the uterus are, however, more distinct, and it presents the appearance of a white pearly fasciculated membrane, about a quarter of an inch in breadth, proceeding from the mesial line at right angles to the nerves accompanying the blood-vessels, across the body of the uterus to the round ligament, where it unites with a plexus on the anterior surface of the uterus. Numerous branches are sent off from the upper and lower borders of the posterior plexus to the muscular coat of the uterus. An extensive and intimate union at various points is distinctly perceptible between the branches sent off from the plexus, and the branches of the nerves accompanying the uterine arteries and veins, and those which proceed from the hypogastric plexus and cervical ganglion to spread out and form a great nervous web under the peritonæum on the posterior surface of the uterus. On the anterior and upper part of the neck of the uterus there is a great mass of reddish coloured fibres, firmly interlaced together, resembling a thin broad ganglionic nervous plexus, into which numerous large branches of the hypogastric nerves enter on both sides, and to which they firmly adhere. From the upper part of the mass there passes up under the peritonæum over the whole anterior surface of the uterus a great plexus, the branches of which pass into the muscular coat, or unite with those nerves proceeding with the blood-vessels to the upper part of the uterus. Prolongations of this plexus also extend to the round ligaments, and some of its filaments unite with those of the spermatic nerves.

From the form, colour, and general appearance of these plexuses on the body of the uterus, and the resemblance they bear to ganglionic plexuses of nerves, and from their branches being continuous with the hypogastric and spermatic nerves, I was induced to conclude on first discovering them, that they were nervous plexuses, and constituted the special nervous system of the uterus.

PLATE I.

EXPLANATION OF PLATE I.

A. Posterior surface of the fundus, and body of the gravid uterus in the sixth month.
B. Left ovarium.
C. Right ovarium drawn upward to the fundus uteri.
D. Peritonæum covering the back part of the cervix uteri.
E. Left ureter.
1. Aortic plexus of the great sympathetic nerve, which was situated over the last lumbar vertebra at the bifurcation of the aorta.
2. Right hypogastric nerve.
3. Left hypogastric nerve, dividing into branches to form the left hypogastric plexus.
4. Filaments from the left hypogastric plexus to the left ureter.
5. A nerve proceeding from the same plexus, which passes between the ureter and uterus to a plexus of nerves surrounding the uterine artery and vein.
6. A plexus of nerves around the trunk of the uterine vein, from which branches proceed to the superior part of the uterus along with this vessel.
7. Filaments of nerves ramifying on the blood-vessels and muscular coat of the uterus, and on the inner surface of the peritonæum.
8. A branch of the spermatic vein, which anastomoses on the side of the uterus with the principal uterine vein.
9. The sacral nerve, sending branches to the posterior part of the ganglion at the cervix uteri.
10. The trunk of the left hypogastric nerve prolonged through the hypogastric plexus to the ganglion.
11. The ganglion at the cervix, from which branches proceed to the plexus surrounding the uterine vessels, the bladder, vagina, and rectum.

a. The right hypogastric nerve and plexus.
b. Ganglion at the cervix drawn away from the uterus, and all the small soft nerves which passed from it to the cervix removed.
c. Sacral nerves entering the ganglion.
d. Nerves from the ganglion and hypogastric plexuses spreading out on the posterior surface of the uterus, and ramifying under the peritonæum and upon the muscular coat.
e. Trunk of the right uterine vein, with the nerves accompanying it to the upper part of the uterus.
f. A great plexus extending across the posterior surface of the uterus, with nerves from the ganglion and hypogastric plexus entering it.
g. Termination of this plexus in the anterior plexus.
h. Nerves passing from the anterior plexus into the nerves accompanying the uterine vessels.
i. Branches of these nerves passing behind the vein to the fundus uteri.
j. Branches from the spermatic nerves joining the posterior plexus.
k. Slender filaments passing from the anterior and posterior plexus to the ovarium.
l. Spermatic blood-vessels, nerves, and absorbents.

(To be continued.)

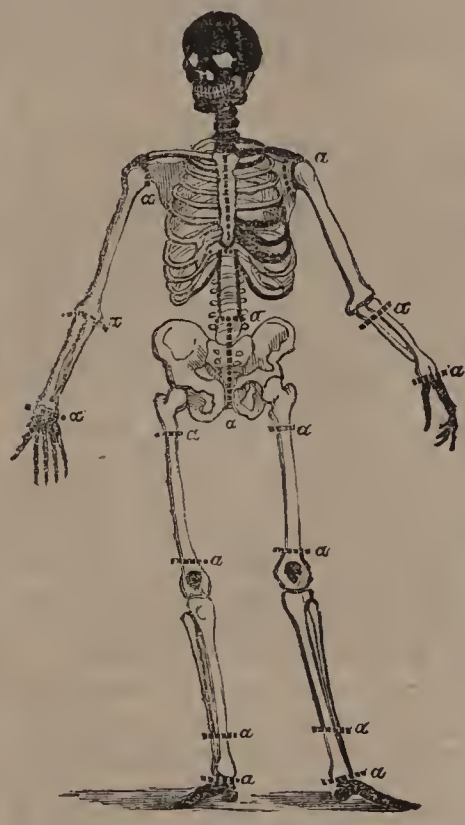
HYDROCELE CURED BY FRICTION OF THE TUNICA VAGINALIS.—Sebastian Hook, æt. 59, mechanic, of bilious temperament, and regular in his habits; admitted Oct. 17, 1856. About five years before, his scrotum commenced enlarging, which finally increased to a very large size, in the space of two years. After which time the veins of his legs became enlarged, and ulcers formed of considerable dimensions over both tibia. When admitted, his general health was tolerably good. Scrotum much enlarged and fluctuating. Tunica vaginalis contained probably a pint and a half of fluid. The veins of both legs were enlarged to three times their normal size, with several ulcers over both tibia. Six weeks after admission his hydrocele was tapped with a trocar, and the above named amount of fluid evacuated. No injection was used, and instead friction employed for a few seconds, by Professor Blackman, causing no inconvenience to the patient at the time. In a few hours the scrotum appeared much swollen, red, and somewhat painful. Ordered cold water dressings and opiates at bed time. The inflammatory process gradually subsided, and in a few days the hydrocele was cured.—*Western Lancet*.

ORIGINAL COMMUNICATIONS.

REPORT OF EXAMINATION OF THE REMAINS OF A BODY FOUND ON WATERLOO BRIDGE.

By ALFRED S. TAYLOR, MD., F.R.S.

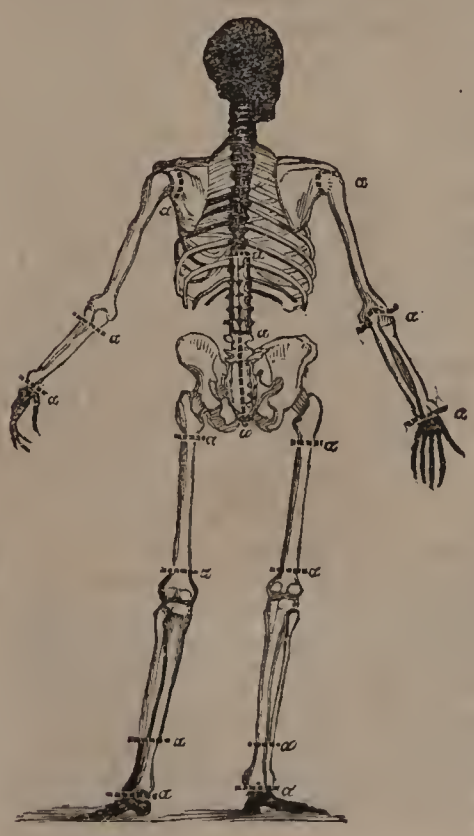
I have made an examination of these remains on three separate occasions, namely, on the 16th, 19th, and 21st October. They were shown to me on each occasion by the Divisional Surgeon, Mr. Painter, in the presence of Superintendent Durkin.



a. Dotted lines, showing where the body was cut or sawn. Missing parts, black.

These remains are parts of the body of a human being. They are parts of the same body, and, making due allowance for the deficient portions, they admit of an accurate adjustment to each other. Twenty-three pieces of the body were shown to me, consisting chiefly of bone with portions of flesh adhering to them. The flesh had been roughly cut from the bones, apparently with the view to remove as much of it as possible; and the parts had been cut and sawn into small lengths, probably to reduce their bulk, and to allow them to be packed into a small space. The trunk, including part of the chest and spine, has been cut into eight pieces; the upper limbs have been cut or sawn into six, and the lower limbs into nine pieces.

The deficient portions are—the head, with the greater part of the spine, namely fourteen out of twenty-four vertebræ (seven cervical and the seven upper dorsal), the hands, the feet, and some portions of the left side of the chest. The whole of the viscera of the chest and abdomen are also deficient.



A drawing which accompanies this Report will convey an idea of the proportion which the parts found, bear to those which are deficient. When compared with the average weight of the body, the quantity found is small. The twenty-three pieces produced, after soaking in brine for some days, weighed only eighteen pounds. This is about one-eighth part of the average weight of the adult body.

These remains have been examined specially with a view to the solution of the following questions :—

1. The sex, age, and stature of deceased.
2. The presence of any physiological or pathological peculiarities, in reference to identity.
3. The presence of any marks of violence with reference to the probable cause of death.
4. The general condition of the remains with a view to determine whether they are parts of a dissected body, and whether they had undergone any chemical process for the purpose of preservation.
5. The length of the period which has elapsed since the death of the deceased.

1. *Sex, Age and Stature of Deceased.*

It is unnecessary to deal with a question sometimes raised on these occasions, whether the remains or any portions of them are those of an animal. Beyond all doubt they are parts of a human body ; and there are no duplicate portions such as are commonly found when bodies have been used for the lawful purposes of dissection. The parts found belong to one and the same body.

The *sex* is also placed beyond doubt. The length and massiveness of the bones of the upper and lower limbs, the marked characters of the ridges and processes, the form of the pelvis, the dimensions of the inlet with the narrowness of the space in the arch of the pubes, clearly indicate that the deceased was of the male sex. This is confirmed by the remains of a portion of the anatomical structure of the male, still adhering to the arch of the pubes on the right side. An attempt has obviously been made to destroy all traces of the sex ; and this, so far as the soft parts are concerned, has been effected on one side of the arch of the pubes but not on the other. Those sexual parts have not been dissected, but rudely mutilated and and irregularly cut on the two sides.

The firmness, solidity, size, and weight of the bones, the complete ossification of the ends of the long bones, and the thickness of the shafts of the thigh-bones, compared with the space occupied by the medullary cavities, are conditions which show that the deceased had reached a full adult age, which I would assign presumptively, judging from the appearance of the skeleton, at from thirty to forty years.

2. *Physiological or Pathological Peculiarities—Identity.*

The bones presented in no part marks of malformation, disease, united fractures or mechanical injury, excepting that which had been produced after death by sawing. Some of the joints were fixed with the sawn portions of the bones in an unusual direction. The head of the right thigh-bone remaining in the hip-joint was flexed on the trunk at an angle of 45° : the knee on this side was also firmly flexed at an angle with the thigh. The left arm (humerus) was fixed in such a direction, as to be widely separated from the left side of the body, instead of lying parallel to it ; and on this side the forearm was firmly bent on the arm at the elbow-joint at an angle of 45°. On the right side, viewing the direction of the bones as fixed by the portions left in the joint, the forearm was bent on the upper arm at an angle of 80°. On examining the joints, it was found that there was no ossification (anchylosis) or other disease to account for this firmly flexed condition of the upper and lower limbs on the right side, and of the upper limb on the left side. I infer from this examination, that the limbs had not been relaxed since they had undergone the rigidity of death, that the body had been cut and sawn while in this rigid state, and that the mode in which it was subsequently treated, to which I shall presently refer, tended to preserve the fixed condition of the joints, as a result of cadaveric rigidity in a constrained posture.

The small portions of skin remaining on the wrists and the right knee are rather thickly covered with long dark hairs.

3. *Marks of Violence—The Cause of Death.*

The cutting and sawing of these remains took place after death. The cutting has been effected roughly with a knife, while the sawing has been performed in the shafts of the long bones with a fine saw. In one portion of the left side of the chest, comprising the second, third, and fourth ribs, with one half of the chest-bone attached, there is an aperture in the flesh, presenting the appearance of a *stab*. It is situated in front, between the third and fourth ribs, near their junction with the chest-bone. It has penetrated the cavity of the chest, and presents, as seen from the inside, an opening about the six-tenths of an inch in its longest axis, which is obliquely placed, but inclined to a vertical direction. Assuming that this wound had been inflicted during life, it would have penetrated the heart, and have produced rapid if not immediate death. The muscles of the chest through which this stab has passed present, for some space around, a dark red colour, evidently produced by blood which had been effused as the result of the wound. This appearance is unlike that produced by a cut or stab in a cold dead body, in which circulation has ceased. The edges of the wound are everted and wide apart, and this condition, together with the infiltration of the muscles with blood, which even the soaking in liquid for a week had not removed, lead me to the conclusion that this wound was inflicted on the deceased either during life or within a few minutes of death, while the body was warm and the blood was liquid.

There is no other mark of violence during life, or any other appearance in the remains which points to a cause of death. The deceased may have actually died from a fracture of the skull and injury to the brain, or from a stab in the abdomen affecting some large blood-vessel. As the organs of the chest and abdomen are not forthcoming, any opinion on the cause of death must be a matter of speculation. The ribs and muscles of the right side of the chest (which are complete in three pieces), when placed together and examined, present no marks of stabbing or fracture. Any mortal wound on the chest therefore must have been on the left side. The first, fifth, and sixth ribs, with their attached muscles, are wanting on this side. There may have been stabs in the spaces between these missing ribs, which would have involved the large blood-vessels of the chest or the heart itself.

4. *General Condition of the Remains.*

No portion of the twenty-three pieces of the body presented the appearance of having undergone dissection for the purposes of anatomy. The muscles, blood-vessels (which were not injected), and nerves, had been cut through in all directions, without any reference to relative position or the respective courses of the vessels and nerves. The spinal marrow had been violently torn out of the vertebral canal, and left hanging by its sheath to the vertebræ. The joints had been sawn through, evidently with great trouble, at points where a scalpel, in the hands of even a young anatomist, would have speedily effected the separation of the limbs. The acromion process of the right scapula had been sawn through, in order to remove the shoulder—the right clavicle was left attached to the upper rib on that side—the sternum or chest-bone was sawn in a right line through its centre, while the cartilages of the remaining ribs, which are always cut for the convenient examination of the chest, were uncut. The left scapula or blade-bone had been sawn through, so as to leave the cavity of the shoulder-joint (glenoid cavity) still attached to the head of the humerus or long bone of the arm ; and the ribs, as well as the processes of the vertebræ of the spine, were sawn and cut without reference to their anatomical bearings. The pelvis was sawn in two pieces through the centre of the sacrum. In short, the closest examination, coupled with the knowledge derived from an experience of seven years spent in the study of anatomy by dissections, leads me to the conclusion that these remains have not been employed for any anatomical purpose whatever. On the contrary, I believe that from the period at which the rigidity of death took place, they have been rendered utterly useless for any such purpose.

The flesh left upon the bones was brittle, and of a brownish colour. It presented the appearance of boiled flesh. A portion of this, as removed from the bones soon after their discovery, was delivered to me by Mr. Painter, and I made a chemical examination of it in his presence. It had not undergone putrefaction, and had the smell of salted muscle. It was submitted to chemical analysis for the detection of those substances which are used for the preservation of animal matter, namely, arsenic, corrosive sublimate, common salt, nitre, alum, the salts of alumina, and chloride of zinc, with the result that the only substance present was common salt. This was separated from the muscular fibre, and obtained in a crystalline state.

The thicker portions of flesh remaining on the bones of the pelvis, when cut into, were of a slightly reddish tint. This red tint was probably partly owing to the effects of salting. The superficial portions of flesh in the remains presented

the brownish colour, and softened and corrugated appearance produced by exposure to boiling water. The ligaments, tendons, the exposed portions of cartilage, and the skin on the wrists and right knee, present such appearances as exposure to boiling water for a short period would alone account for or explain. The cuticle of the skin (which was not in a state of putrefaction), could be peeled off: the bare skin itself was swollen, gelatinous-looking, and curved inwards at the margin where the fat had been removed from the cellular membrane beneath. Such would be the effect produced by boiling water. An examination of the sawn shafts of the long bones, shows that the marrow has been melted out, and removed (by boiling water) from the medullary cavities at each exposed extremity. The boiling has not been continued for any length of time, since the deep-seated portions of muscles do not show the changes which would have otherwise been produced in them, and the marrow is not removed from the centre of the long bones. The divided ends of the arteries, and the divided portions of the spinal marrow with its sheath, also show such effects as boiling water would produce. The cut portions of the arteries are opaque, hardened, and everted.

To this exposure to the action of boiling water while the separate portions of the body were in a state of cadaveric rigidity, I attribute the peculiar fixation of the thigh, knee, and arms in a flexed condition. The ligaments appear to have contracted as a result of the action of hot water, and thereby to have retained the sawn portions of bone remaining in the joints, in the position which they had acquired as a result of rigidity. The appearances are such as are produced by the action of boiling water on *dead* animal matter. There is nothing to show that boiling water has acted on any living structure: while it is obvious from the effects produced on the sawn bones, ligaments, and arteries, that the body must have been cut up before the parts were exposed to a boiling temperature.

It is my opinion that the remains were exposed to boiling water before they were salted. In reference to the portion of flesh which I examined, the salt was in such quantity that it was easily dissolved from the outside by cold distilled water; and I am informed by Mr. Painter, that when first examined by him, parts of the flesh presented solid gritty particles resembling salt. These facts lead to the inference that the salting took place after the partial boiling of the remains, the object of these two operations being probably the same, namely, to prevent putrefaction, and the probable discovery of the remains by the escape of putrescent effluvia. The piece of flesh which I examined, as taken from the remains by Mr. Painter, had no offensive smell whatever, although he had kept it eight days.

5. Period since Death.

On this point only a speculative opinion can be given. As the remains have been boiled and salted, those changes in animal matter on which we are accustomed to rely for evidence of the period of death, have been suspended. Still an examination of the deep-seated parts of the flesh, and of the interior of the right hip-joint, which had not been opened or disturbed until the 21st instant, has led me to the conclusion that the person, of whose body these remains were a part, may have been dead for a period of three or four weeks prior to that date. This would carry the probable time of death to the last week in September, or the first week in October. The time may have been shorter than this, as the death may have taken place more recently; but, considering that the weather during the period referred to was mild, humid, and favourable to putrefaction, I do not think it was longer. Had death occurred at a more remote period, I should have expected to find some visible changes, indicative of putrefaction, in the interior of the right hip-joint, and in the deep-seated portions of flesh around this joint.

The conclusions which I draw from this examination are:—

1. That the remains are those of a person of the male sex, of adult age, and of at least five feet nine inches in stature.

2. That they present no physiological or pathological peculiarities by which they can be identified. The only fact observable under this head is that the portions of skin remaining are thickly covered with dark hairs, and that the deceased was probably a dark hairy man.

3. That the remains present no mark of disease or of violent injury inflicted *during life*, with the exception of *one stab* in the space between the third and fourth ribs on the left side of the chest. This stab was in a situation to penetrate the heart and to cause death. It presents the characters of a stab inflicted on a person either living or only recently dead.

4. That the remains have not been dissected or used for the purposes of anatomy. All those parts which are useful to the anatomist have been roughly severed and destroyed by a person or persons quite ignorant of the anatomical relations of parts. They have been cut and sawn before the rigidity of death had ceased (*i.e.* probably in from eighteen to twenty-four hours after death), and in this state have been partially boiled, and subsequently salted. The body of the deceased has not been laid out or attended to like that of a person dying from natural causes, whose body might be lawfully used for anatomical purposes.

5. That the person, of whose body these remains are a part, may have been dead for a period of three or four weeks prior to the date at which they were examined by me, namely, on the 21st October instant.

REPORT ON ARTICLES OF CLOTHING FOUND WITH THE REMAINS.

On Monday, October 19, and Wednesday, October 20, various articles of clothing, stated to have been found in a carpet-bag with the remains, were shown to me by Superintendent Durkin, at the Bow-street Police-station, in the presence of Mr. Painter:—

1. *Overcoat.*—The lining of the left sleeve in the arm-pit is much stained with blood, which appears to have collected there. The right sleeve is cut or torn up in its length. On the collar, behind and towards the left side, there is a cut or stab, as from a double-edged knife.

2. *Undercoat* (frock-coat).—This is completely cut up the back from behind. In the hollow corresponding to the left arm-pit there is a deep stain of blood. The right sleeve is cut up in its length. On the left side of the collar behind is a stab or cut, as from a double-edged knife, apparently corresponding to the cut on the collar of the overcoat.

3. *Waistcoat.*—This is torn up in the back. There are stains on the left side from blood (inside), apparently diffused by wetting. On the top of the collar behind there is a cut or stab, as from a double-edged knife, corresponding in form and direction to the cuts in the collars of the over and under-coats. In the waistcoat this cut was found to be in its long axis five-eighths of an inch in length.

4. *Trowsers.*—These are torn up at the back. No appearance of blood inside or outside: some stains of dirt and other matters.

5. *Shirt.*—Right sleeve torn up. On the left side, in front, there are eight cuts, corresponding in number, and apparently in situation, to cuts on the under-shirt. There was no appearance of blood about these cuts, either inside or outside; but the front of the shirt at the upper part presented a generally diffused redness, such as would be produced by blood diluted with water.

6. *Under-shirt* (merino).—Torn in length at the side and behind. On the left side, in front, there were eight cuts or stabs near to each other, having the long axis upwards, and a little slanting. The largest of these was three-quarters of an inch in its long axis, and the smallest, one-quarter of an inch. There were no marks of blood about these cuts, either inside or outside, but the shirt was much stained with blood just above them, both outside and inside, in a direction towards the *left* shoulder. The blood appeared diffused, as if by wetting, except under one of the buttons, where it had coagulated, as it does when it issues from the body of a living person. There was also much blood diffused on the wrist of the left sleeve.

7. *The Drawers.*—These were cut up the back. There was a diffused stain of blood on the right side. In the waist, in front, there was a puncture, about three-eighths of an inch in its greatest length, such as would be produced by a sword-cane. This corresponded to apertures in the trowsers and in the shirt.

8. *The Socks.*—One of these presented on the inside diffused marks of blood. On one there was a distinct spot of blood near the toes.

9. *Half of a black satin neck-tie.*—A slight reddish stain on the lining.

Conclusion.

The examination of these articles of clothing leads me to the conclusion, that the body of the person who wore them must have been subjected to great violence. The stab penetrating from behind the double collar of the over-coat, must have been inflicted with great force, as it extends through the collar of the under-coat and waistcoat. It is chiefly on the inside and on the left side, towards the left armpit, that the principal stains of blood are met with in the over-coat, under-coat and waistcoat. The only wound found in the remains is a stab on the left side, which by its situation might have led to the effusion of blood. Assuming that the clothes belonged to the deceased, these facts appear to receive an explanation. The clothes have, however, been exposed to wet since they were stained with blood, and this creates a difficulty in forming an opinion. The cutting and tearing of the coat, trowsers and drawers at the back, and the cutting or tearing of the right sleeves of the over-coat, under-coat, and shirt, are consistent with the assumption that the body had become rigid after death in a distorted position, and that the clothes were violently torn from it. This position is indicated in the remains, especially on the right side, by the flexed condition of the hip and elbow-joints. Some of the stains of blood present the appearance of having flowed from a living person, and render it therefore probable that the clothes were on a living body when the wounds producing such effusion of blood were inflicted. While there is nothing to prove directly that these clothes were worn by the deceased, they have, in my opinion, been worn by some one who has sustained serious personal injuries. Their condition, however, is consistent with the supposition that they were actually worn by the deceased individual with whose remains they were found.

15, St. James's-terrace, Regent's-park.
October 23, 1857.

IDENTITY OF BRITISH AND ASIATIC CHOLERA.

By W. LAUDER LINDSAY, M.D., Perth.

I HAVE long been of opinion that there is no specific distinction—in regard to their symptomatology and pathology—between the so-called Asiatic, malignant, or epidemic cholera on the one hand, and British or simple cholera—our autumnal diarrhœa—on the other; and that, consequently, it is wrong to speak of them as affections essentially differing in their nature. There are, I admit, certain differences in their characters; but these are minor differences, and quite insufficient to constitute specific distinctions. There are differences, for instance, in their intensity, the one being much more fatal and devastating than the other. I believe that the seeds of cholera are constantly present in our towns; they may lie more or less dormant or latent for a time in our alleys and closes; but they only require a favourable soil to germinate and multiply abundantly. In this respect, it only resembles typhus and other more familiar and less dreaded diseases, which, while always present amongst us in an unobserved or inconspicuous form, become now and then epidemic—that is, they are disseminated, and their intensity is increased by climatal, seasonal, or local accidental circumstances, of the precise nature and *modus operandi* of which we know, at present, very little. It is quite a mistake to regard cholera as always originating periodically in India, and slowly traversing the continents of Asia and Europe before it finally reaches our own shores. It is an unfortunate error, that we prepare to meet this imported scourge as something different from, and infinitely more formidable than our British cholera, which sometimes becomes as extensively epidemic and abundantly fatal; and the discovery is somewhat absurd that, while we are carefully guarding our Eastern seaports against the introduction of *Hamburg* cholera, the enemy is quietly lurking in our midst—a dangerous spark ready at any moment to burst into flame. I trust I shall not be accused of being an alarmist when I assert most distinctly my conviction that cholera—I mean that dreaded or severe form at present designated Asiatic—will gradually become more and more familiar to us—more and more firmly settled in our towns—more and more frequently epidemic—more and more insidious in its periodic outbursts and devastating in its progress. Our sanitary measures ought not, therefore, to be framed with a view to warding off, or mitigating the intensity and virulence of a foreign imported cholera, but to coping with a disease which is, or, at least, will at no distant date become, as thoroughly British as typhus. This practical aspect of the question cannot be too extensively known—too forcibly impressed upon the public mind. A study of cholera during the epidemic of 1853-4 convinced me that there is no single pathognomonic sign or symptom; that cases occur—and fatal cases too—without lividity, "rice-water" stools or cramps—without vomiting, purging, or *vox cholerica*, and that, indeed, the only condition invariably present—this condition not being peculiar to cholera, but common to other diseases—is lapse. My object in this brief paper is not, however, to enter upon the discussion of any of the points above mooted, but simply to offer as a contribution to this department of the natural history of cholera a few illustrative cases of recent occurrence, with a view to excite to discussion and stimulate to inquiry.

The cases in question are few in number, but interesting in kind. They happened in the Perth Royal Asylum during the past spring. At that period May, 1857, no epidemic or Asiatic cholera existed in the country; but simple diarrhœa, or British cholera so-called, was prevalent in the neighbouring town of Perth. The affection in the following cases was not traceable to any ascertainable cause; there was no eating of fruit nor exposure to cold and damp sufficient to account for it. It must, therefore, be set down as the product of epidemic influence,—of some unknown atmospheric poison or miasma. The collapse was sudden, and in one or two cases extreme; there were present all or most of the conventional symptoms of cholera, and the patients were of all ages and constitutions—some of them being among the healthiest members of our community. The chemical and microscopical characters of the evacuations, moreover, were identical with those which it occurred to me to see in Edinburgh during the last visitation of cholera in 1853-4. Had cholera been prevalent in an epidemic form throughout the country last spring, the cases I am about to describe would undoubtedly have been returned by the majority of observers as cholerine,—a very convenient but non-scientific term for mild cases not passing beyond the collapse stage, and terminating in recovery. But they were not contemporaneous with epidemic cholera; *ergo*, they must be set down as cases of simple or British cholera—vernal diarrhœa! At least so says the *vox populi*: but I protest most emphatically against this species of reasoning. My cases of 1857 were identical with those of 1853-4 in all essential respects: but in the one case they occurred during an epidemic visitation of cholera, while in the other no cholera was supposed to exist in the country. I contend that the cases were cholera equally in the one case as in the other. My cases of 1857—as it happened,—terminated in recovery; but my friend, the late Dr. John Kirk, H.E.I.C.S., then of Cumbernauld, Dumbartonshire, informed me that in 1855 he had two fatal cases of malignant or Asiatic cholera presenting all the characters—and the worst characters—of the cholera of 1853-4. And I have no doubt that similar cases occur every now and again, and every here and there: only they are known under a different name,—the less formidable and more convenient one of diarrhœa or bowel complaint! But there is no reason why cholera should be more dreaded than Typhus, Scarlatina, Rubeola or Influenza which, while always dwelling in our large cities, become occasionally most formidable epidemics. Scarlatina, for example, has been during the last three months extremely fatal in and around Perth, whole families being, in some cases, carried off by it.

The first of the cases above referred to occurred on the 4th May, 1857, at which time the health of our community was most satisfactory.

May 4th, 1857.—*Case* No. 1.—Male, aged 69, attendant: up to the time of his seizure in perfect health; a hale, sober industrious man. I was suddenly called to see him at 6.30 a.m., and found him presenting all the appearances of a serious case of cholera. He was cold and livid; the "vox cholerica" was marked; there was a distinct areola round the eyes; the pulse was small and feeble; he complained of thirst and intense prostration, of severe spasms of the calves of the legs, gradually extending upwards to the back—and of almost incessant and very severe vomiting

and purging. He had been suddenly seized at midnight with vomiting and purging: he had almost incessantly during the night crossed and recrossed the gallery to the watercloset: cramps and a feeling of coldness and prostration succeeded. From having passed all his evacuations in the watercloset, unfortunately no specimens were preserved for my examination: but he described both stools and vomit, after the first evacuation, as "pure water." He gradually rallied under careful nursing and the use of toddy and hot water bottles. He was quite unable to assign any reason for his illness: there was certainly no peculiarity in his diet to account for it. He passed urine with his stools during the night.

5th.—I examined the first urine passed in the morning after collapse. It was scanty—turbid—of a deep amber colour—had an acid reaction: with an ammoniacal odour and a mucous sediment. The latter under the microscope consisted chiefly of spermatozoa, both free and in tangled masses,—mucous corpuscles, compound granular bodies, and a few dumb-bell oxalates. Heat and nitric acid showed the presence of albumen: and the latter acid, added in drops to the boiled urine, caused the immediate development of a dark purplish colour, which rapidly passed through lilac and green into a port wine tint. Such a reaction is generally attributed to the presence of bile. Whether this opinion be correct, or whether the reaction in quesiion is not rather due to colouring matter, I do not stop here to inquire. Certain it is, whatever be the rationale, that a like re-action of the urine with heat and nitric acid is common in cholera. Sulphate of copper and aqua potassæ caused no precipitate, but the development of an olive or brownish colour. He vomited after everything he took yesterday, the ejesta being of a chocolate or porter colour, without any peculiar odour. The voice was less husky; pulse fuller, but still feeble; countenance suffused; eyes heavy; complained only of great weakness in the small of the back, at night worse; complaining much of pain in the abdomen, of sickness and faintness.

He was confined to bed for some time from the effects of reaction. His legs remained sore and feeble for a considerable period, apparently the result of the severe cramps. On May 11th, I found his urine of spec. grav. 1030: very turbid with urates: acid. Nitric acid, after heat, produced only a slight red tinge: there was, therefore, now no albumen present. The scanty sediment contained only a few compound granular bodies and urates of ammonia.

On May 18 he was up, and at duty; but he continued to suffer for some days from numbness of the left foot and leg, which was only gradually remedied by exercise.

May 19.—*Case* No. 2, a girl, aged 22, a patient, stout, in robust health; one of the strongest looking and healthiest persons in the community; appeared in her usual health, and was at her ordinary work as a sempstress; but complained of nausea and malaise. When questioned as to her food, she confessed to having eaten a stalk of raw rhubarb on 17th; but the connexion of her symptoms with this apparent cause is by no means clear.

20th.—She was in bed with all the appearances of cholera-collapse. There was a very marked areola round the eyes; the features were pinched and anxious; the pulse small; body cold; the feet were not distinctly cramped, but they felt "as if strings were running through them," while they were numb and cold; thirst was inordinate, the constant cry being for cold water or milk; the voice, however, was as yet comparatively unaffected. During the night she had suffered from incessant vomiting and purging, both the vomit and stools being described as green and watery. She vomited and retched severely after everything she took, even after cold water. The vomiting and purging continued all day, all the evacuations being of a bilious tinge, and containing a considerable amount of mucus. Most distressing jactitation was superadded in the course of the day. Complete anorexia existed: she asked for, and could swallow, nothing but water.

The vomit was whey-like, consisting mainly of water and mucous flocculi; the latter partly floated as a thin pellicle on the surface, partly formed a finely granular ricy sediment. The reaction was acid to the test paper. No change was produced on the addition of nitric acid after heat. Heat alone dissolved the mucous flocculi, and rendered the fluid more uniform and turbid. In the mucous film and sediment, the microscope detected a quantity of large pavement epithelial scales (buccal), with very distinct granular nuclei; free nuclei; compound granular bodies; striated bands of mucus, and large numbers of starch globules, which gave their characteristic reaction with iodine.

The stools were scanty, and of a slight greenish tint; they consisted mainly of mucus and water or serum. The reaction with test paper was acid; the fluid portion showed the presence of albumen on heating it; but no colour was developed by the addition of nitric acid, subsequently to heat, save gradually a slight brownish tint. The microscope detected no striated mucus nor epithelium; but the disintegrated débris of mucous membrane, and a few compound granular bodies.

The urine was small in amount, and, being passed along with the stools, I had no opportunity of examining it.

On the same day several cases of diarrhœa, with or without nausea, vomiting and cramps, showed themselves among the inmates of the Institution.

No. 3.—A strong, healthy girl of 27, the very picture of vigour and activity, suffered from severe purging, vomiting, nausea, and colicky pains; she was unable to raise herself in bed from malaise, and a peculiar faintness, which, she said, she could not describe. The pulse, however, was full, and the body warm. She rapidly rallied, and was up in a few days.

No, 4.—A female aged 37, pale, anæmic, debilitated and suffering from menstrual irregularities, had an attack of simple diarrhœa, uncomplicated with cramps, vomiting, or nausea.

No. 5.—A girl, aged 26, short built, plethoric, stout, the subject of amenorrhœa, suffered to such a degree from nausea and malaise, without vomiting or purging, that she was unable to work, though she appeared in perfect health.

No. 6.—A male, aged 55, of delicate build, but in the enjoyment, up to this time, of excellent physical health, was purged incessantly during the night, with cramps, but no vomiting. The pulse was small, the body cold, the features pinched. Two commodes were full of a semi-fæculent, greenish fluid, which was not examined. Anorexia and languor continued throughout the day; but he speedily rallied, and in two days was up and in his usual health.

No. 7.—A male, aged 35, an attendant, a powerful, healthy, athletic man, suffered from suspicious abdominal griping and uneasiness.

May 21.—No. 2: considerably improved; features fuller and ruddier; but there were cramps during the night. The vomiting and purging continued, though in a less degree, and the same might be said of the anorexia and thirst.

Vomit still whey-like; acid; gave no reaction with heat and nitric acid; microscope showed the presence of a quantity of large pavement epithelium-cells, with very granular nuclei; of oil globules; and of vegetable débris—the disintegrated elements of food.

The urine was collected separately and examined; it had the natural odour, was acid, and slightly albuminous and phosphatic; there was no peculiar colour-reaction with nitric acid. The sediment was scanty and finely granular, consisting chiefly of large pavement epithelium-cells infiltrated with fine granular matter; of large organic globules, which were apparently altered blood-discs, and of a few compound granular bodies.

22nd.—No. 2: greatly worse, the vomiting and purging were aggravated; great and distressing jactitation existed, along with anorexia, flatulence and inordinate thirst. The patient was utterly apathetic and prostrate, tossing about now and then in an indescribable state of suffocative agony. The stools were scanty, but ricy or whey-like, the bilious tinge having gradually disappeared.

No. 8.—A male of 70, in comparatively good physical health for a man of his years and previous habits, [dissipated], but subject to attacks of dysenteric diarrhœa; suffered from annoying flatulence, griping pains in the abdomen, and a constant straining at, and desire to go to, stool, without evacuation.

24th.—No. 2: was in a state corresponding to the consecutive fever stage of cholera, following reaction: she was flushed and feverish; the pulse full; the body warm; the face florid: there was very little tendency to vomit. The purging was abated or nearly gone; she ate better; there was less thirst, and the areola had disappeared. She was confined to bed for some days subsequently; but her recovery, though gradual, was complete and satisfactory.

No. 8.—Continued for some days to be affected with flatulence, hiccup, insomnia, a constant desire to go to stool, painful straining, and scanty but fæculent evacuations. All the other cases had already recovered, and were engaged at their usual avocations.

On the 29th, 30th, and 31st May, and during the first three or four days of June, there were several cases of diarrhœa, vomiting or malaise, simple in their character, short in their duration, and quite amenable to treatment. Subsequently to this period there was no decided tendency among the inmates of the Institution to diserders of the gastro-intestinal system.

Perth, October 1857.

THREE CASES OF THORACIC ANEURISM.

By WILLIAM F. SOLTAU, M.B., OXON.
Physician to the Plymouth Public Dispensary.

Anne A., æt. 35, married; has had children, none of whom have survived the age of childhood. When first seen, which was about nine months previous to her death, she presented the following symptoms:—She was of a spare habit, and her countenance very anæmic. She had for some time suffered from scrofulous ophthalmia. Up to within the last seven weeks she had followed her ordinary occupation as charwoman. She then began to suffer from pain in the back, and numbness of the left side. This had increased, and her breath had become so short as to prevent her working. The catamenia were regular; urine free; bowels confined; sleep indifferent; appetite good. On feeling for the pulse in the left wrist, I found there was none; but that of the right was full and regular. She complained of pain beneath the sternum, and in the back, and also of the numbness down the left side. On examining the sternum, I discovered a small pulsating tumour, about the size of a walnut, under the sternal end of the second rib of the left side. The stethoscope applied over this gave to the ear a whizzing sound synchronous with the pulse. A rasping bruit was distinctly audible over the region of the semilunar valves. These physical symptoms led me to the conclusion that the case was one of aneurism of the ascending aorta or its arch. The patient continued under treatment for three months, and the disease having made no progress, she was dismissed relieved. About nine months after this she again returned. The tumour under the sternum had much increased toward the right side. She complained much of pain in the shoulder and general uneasiness. She was able, however, to come to the Dispensary. About a week after this she was suddenly seized with a profuse attack of hæmoptysis, which came on from mental emotion, within five minutes after having been told that she was to go into the workhouse. This continued for about five hours; the blood was distinctly arterial. The respiration was greatly hurried and difficult, but as the hæmorrhage diminished, the breathing became easier. About three days afterwards it suddenly returned, when she was nearly suffocated. She then brought up half a pint of arterial blood. When I saw her I thought she was dying; however, she rallied, and lived two days after, when, on being lifted up in her bed, she suddenly expired.

Post-mortem.—The heart and aorta were carefully examined, first *in situ*. A tumour about the size of a goose's egg presented itself, which had pressed upon and absorbed the sternal end of the second rib of left side, and also a portion of the sternum. It was imbedded in the substance of the upper lobe of the left lung. On examining the heart, its right side was found to be free from disease; the left ventricle was also healthy. On tracing up the aorta from its origin, its semilunar valves were found to be much diseased, being enveloped in a mass of bony deposit. The aorta above this was much dilated, and contained the same deposit. Just below the origin of the innominata the aneurismal pouch had commenced. It was firmly adherent to the upper lobe of the left lung, and had burst into its substance, thus producing perfect apoplexy of that viscus.

Eliza D., aged 64. This patient came to the Dispensary complaining of severe headache and giddiness. She was a fine made woman, but very anæmic in her appearance. She had never lost any blood. There was no fulness about the vessels of the head and face. After having regulated the bowels by mild aperients, she was put under a course of iron and ammonia. She was not much benefited by the treatment; her chief complaint being the constant sensation that she "should fall forward." I did not examine the heart. She continued under treatment for about three weeks, when, having been much excited in a quarrel with a neighbour, she fell forward, and instantly expired.

Post-mortem.—On opening the cavity of the thorax, the heart in its pericardium appeared to occupy a larger space than natural. On opening the pericardium, it was found to be full of bloody serum and large clots of blood. The heart with its vessels was then removed, and there was found to be an opening in the ascending aorta, which just above its origin had become dilated into a false aneurism, which had burst into the cavity of the pericardium. The heart was somewhat dilated; its muscular fibre was attenuated. The valves were healthy.

John W., aged 45. This patient was first seen about three weeks before death. He was then suffering from incessant vomiting, and great general depression. His history was that he had been ailing for seven months, ever since the death of his wife. Though a tailor by trade, he had for some time been a conductor of a London omnibus, when he had indulged freely in drink. About the time of his wife's death, when one day running very fast, he suddenly felt "a giving way in his breath," and from that time to the present he has more or less suffered from dyspnœa and palpitation. He came to Plymouth about four months before he was laid up, and he was able to follow his trade up to three weeks before he applied to the Dispensary. His complexion was of a yellowish hue, and was very anæmic. The countenance was very anxious. His pulse was about 70, regular, but weak. On examining the chest, which from his extreme debility it was difficult to accomplish, there was a peculiar pulsation felt below the third rib, at its sternal end on the right side, synchronous with the systole of the heart, but no defined tumour was perceptible to the touch. On applying the stethoscope to the spot, a rasping bruit was heard, which extended over the arch of the aorta, and was gradually lost at the heart's apex. There was no ascites or anasarca. His general prostration was so great that remedies were of litle avail, and the stomach was so irritable that they could only be administered in the smallest doses. In this state he lingered for a few days, and gradually died.

The body was examined about fourteen hours after death, in very hot weather. It was remarkably stiff, with the head somewhat drawn back. It had been necessary to tie the legs together. The toes were flexed, and the feet arched. On dissecting away the muscles of the chest much liquid blood escaped. On opening the cavity of the chest the heart was seen occupying a much larger space than natural, and on the spot which corresponded to the place where the pulsation was felt during life, a bulging was seen through the pericardium. When the pericardium was opened more than a pint of straw coloured serum escaped. The heart was found to be enormously enlarged, being equal in size to that of a bullock. It was carefully removed. The left ventricle was first examined. It was greatly dilated, so that a moderate sized hand was easily placed within it. There was no hypertrophy of its muscular structure. The mitral valve was healthy. Both ventricles were full of blood. The right side of the heart was also dilated; its valves were free from disease. On examining the aorta from its ventricular origin, its semilunar valves were found to be healthy; but just above them there was found to be a pouch about two inches in length, like the thumb finger of a large glove. This on being opened was found to contain a large clot of blood, but no fibrin. The aorta both here and throughout its course was full of atheromatous deposit between its coats. The innominata, and left carotid and subclavian were healthy. The lungs were congested, and the cavity of the pleura contained much serum.

HEIGHT OF THE PLEURA ABOVE THE CLAVICLE.—Before the New York Academy of Medicine, Dr. Isaacs, Demonstrator of Anatomy in the University of New York, stated, that in fourteen subjects out of one hundred, the *pleura* rose two inches and upwards above the superior margin of the clavicle. He even suggests the possibility, that death attributed to the entrance of air into a vein in operations low down in the neck, may have been caused by the surgeon having opened the pleural cavity.—*Nashville Journal.*

THE LONDON

PRACTICE OF MEDICINE AND SURGERY.

STATISTICAL REPORT OF THE PRINCIPAL OPERATIONS PERFORMED DURING THE SECOND QUARTER OF 1857.

(Concluded from page 422.)

THE subjoined report includes as uaual the following Hospitals :—University College, King's College, St. Bartholomew's, St. Genrge's, Guy's, St. Thomas's, the London, the Middlesex, the Westminster, Charing-cross, St. Mary's, the Metropolitan Free, the Marylebone, the Hospital for Sick Children, and the Dreadnought Seaman's Hospital.

EXCISION OF THE BREAST, OR OF TUMOURS CONNECTED WITH IT.

Case 1.—Guy's: Mr. Hilton.—A woman, aged 44, of impaired health. The tumour, which was cancer, had existed a year and a half; the whole gland was removed. Recovered. *Case* 2.—King's College; Mr. Partridge.—A healthy woman, aged 50. Excision of the breast on account of scirrhus of 15 months' duration. Recovery. *Case* 3.—King's College: Mr. Partridge.—A woman, aged 43, in good health. Excision of the breast on account of scirrhus. Recovered. *Case* 4.—The Middlesex: Mr. De Morgan.—A girl, aged 18, in good health. Excision of a chronic mammary glandular tumour, of two years' duration. Recovery. *Case* 5.—The Middlesex: Mr. Henry.—A girl, aged 21. Excision of mammary glandular tumour. Recovery. *Case* 6.—The Middlesex: Mr. De Morgan.—A woman, aged 43. Excision of a mammary glandular tumour of three years' duration. Recovery. *Case* 7.—St. Thomas's: Mr. Le Gros Clark.—A delicate woman, aged 53. Excision of the breast on account of scirrhus of two years' duration. Recovery. *Case* 8.—King's College: Mr. Partridge.—A woman, aged 42. Excision of a scirrhous breast. Recovery. *Case* 9.—St. Mary's: Mr. S. Lane.—A woman, aged 33. Excision of the breast on account of a nodulated growth of scirrhus of five years' standing. Recovery. *Case* 10.—St. Bartholomew's: Mr. Lawrence.—A woman, aged 49. Excision of the breast on account of scirrhus. Recovery. *Case* 11.—University College: Mr. Erichsen.—A woman, aged 36, in good health. Excision of the breast on account of cystic sarcoma. Erysipelas followed, and sloughing of the skin over the opposite breast took place. Death three months after the operation. *Case* 12.—Guy's: Mr. Cock.—A woman, aged 50, in good health. Excision of the whole breast on account of cancer. Recovery. The axillary glands were enlarged. *Case* 13.—The Marylebone: Mr. Henry Thompson.—A woman, aged 62, in good health. Excision of the whole breast on account of cancer. The tumour proved to be colloid, mixed with encephaloid. Recovered. *Case* 14.—University College: Mr. Quain.—A woman, aged 64, in good health. Excision of the breast on account of an encephaloid tumour of two months' growth. Recovery. *Case* 15.—St Bartholomew's: Mr. Skey.—A woman, aged 40, in good health. Excision of the breast on account of scirrhus. Recovery. *Case* 16.—St. Thomas's.—A married woman, aged 48. Excision of the whole breast on account of a growth of scirrhus of two years' duration. Peritonitis occurred after the operation, but was subdued. Recovered. *Case* 17.—The London: Mr. Curling.—A single woman, aged 43. Excision of the entire breast on account of scirrhus. Her convalescence was retarded by the occurrence of erysipelas. Recovered. *Case* 18.—The London: Mr. Curling.—A woman, aged 51. Excision of a large mammary glandular growth, together with the breast. Recovery. *Case* 19.—The Metropolitan Free: Mr. Borlase Childs.—A married woman, aged 43, in robust health. Excision of the left breast on account of a very large scirrhous growth. Recovery. *Case* 20.—Guy's: Mr. Hilton.—A woman, aged 44, in good health. Excision of the breast on account of cancer. Death, with symptoms of pyæmia. Sloughing of the back had occurred, and an abscess was threatened in one calf.

EXCISION OF MALIGNANT TUMOURS.

Case 1.—Guy's: Mr. Hilton.—A man, aged 32, in poor health, was admitted with a firm fibroid growth in the ball of the thumb, of six months' duration. In the excision it was found closely adherent to the sheath of the flexor tendons. Recovered; but has since been re-admitted with a returned growth in the same place. *Case* 2.—Guy's: Mr. Cock.—A man, aged 51. Excision of a cancer of the lip. Recovery. *Case* 3.—The Metropolitan Free: Mr. Hutchinson.—A woman, aged 80, accustomed to smoke. Excision of a large epithelial cancer of the lip. Recovery. *Case* 4.—University College: Mr. Erichsen.—A healthy-looking man, aged 67. Excision of a malignant growth, the size of a hen's egg, from the left nostril. Recovery. The disease has since returned.

OPERATIONS FOR CARIES OF BONE.

Case 1.—St. Mary's: Mr. Ure.—A boy, aged 10, under care with diseased tarsus. The bones having been exposed by incisions, the gouge was used, and diseased portions of the astragalus, calcis, and cuboid removed. Doing well. *Case* 2.—Westminster: Mr. Holt.—A girl, aged 14. A portion of necrosed bone was removed from the metatarsal bone, and the corresponding surface of the os calcis gouged. Recovered, the parts being soundly healed. *Case* 3.—The Westminster: Mr. Holt.—A man, aged 35.—Extensive disease of the tarsal bones, following the tread of a horse. The diseased portions were gouged away. Doing well. *Case* 4.—The London: Mr. Curling.—A scrofulous lad, aged 12. Several portions of dead bone were removed from the os calcis, and the gouge was also applied. Doing well.

OPERATIONS FOR REMOVAL OF NECROSED BONE.

These have been performed in 23 instances, and with but one death; and in that one, as will be seen below, the necrosis was of the skull (exfoliation), and not of a long bone. The following were the bones involved:—The femur in 4, the tibia in 6, the fibula in 1, the humerus in 3, the radius in 4, the ulna in 2, the calcis in 1, and the calvaria in 3. The fatal case was that of a young woman, under Mr. Erichsen's care, in University College Hospital, on account of extensive syphilitic exfoliation of the calvaria. The dead bone was taken away, but erysipelas followed, and she died a week later.

PLASTIC OPERATIONS.

For cleft palate in 3 cases; 2 successful, and 1 a failure.

For hare-lip 5, 3 single and 2 double; all successful.

For cicatrices of burns in 5 cases; all with more or less of benefit.

Taliacotian in 1; successful.

Operations for restoring the perinæum in 8 cases. In 6 of these good union was procured; in the 7th, the patient had severe vomiting after the deep sutures had been removed, and the adhesions gave way. In the 8th, death from internal disease took place. This last case was that of a woman, aged 50, on whom Mr. Erichsen operated for the relief of very old-standing prolapse of the bladder. A few weeks prior to the operation she had been under care in a Physician's ward, on account of symptoms of intestinal obstruction. The symptoms recurred after its performance, and she died on the fourteenth day. No autopsy was permitted.

EXCISION OF NON-MALIGNANT TUMOURS.

Cases 1 to 20.—In these, fatty tumours 12; cystic, 4; fibrous, 5; or glandular, 1, were removed. In all the patients recovered well. *Case* 21.—The Middlesex: Mr. Henry.—A girl, aged 16, excision of a fibro-plastic tumour from the neck. Recovery. *Case* 22.—The London: Mr. Adams.—A single woman, aged 20. Excision of a fibro-cellular tumour from the right labium. Recovery. *Case* 23.—Guy's: Mr. Cock.—A woman, aged 30, in good health. Excision of a fibro-nucleated tumour of considerable size from the abdomen. Recovered.

OPERATIONS FOR ABSCESS IN BONE.

Case 1.—St. Mary's: Mr. Ure.—A boy, aged 9, under care with enlargement of the lower part of the tibia. A sinus led to bare bone. The gouge was applied, and the cavity of a circumscribed abscess opened. There had been no indications of the existence of abscess. *Case* 2.—The Westminster: Mr. Hillman.—A woman, aged 34. The left tibia was trephined on account of pain, which had existed for two years, and been very severe at times. No matter was found, but the bone appeared to be in a state of chronic inflammation. The pain has been wholly relieved, and the wound is healing. *Case* 3.

University College: Mr. Erichsen.—A boy, aged 14. He had received a blow over the head of the tibia a fortnight before, and the existence of an abscess was suspected. The trephine was used, and some diseased bone was gouged out. Recovering. *Case* 4.—The Metropolitan Free: Mr. Hutchinson.—A man, aged 30, the subject of constitutional syphilis. In the middle third of his right tibia was an enlargement of the whole shaft of the bone, which, despite a long treatment with the iodide of potassium, remained intensely painful. He was worn down by suffering, and in the hope of finding an abscess in the bone, it was determined to use the trephine. This was done in two places. The periosteum was found much thickened, and the bone hard and dense, but no pus escaped. Very great relief to the pain resulted from the operation, but it has not been permanent.

OPERATIONS FOR URETHRAL STRICTURE.

Case 1.—Guy's: Mr. Hilton.—A man, aged 30, in bad health, for two years the subject of a tight stricture. He had on one occasion had his bladder punctured above the pubes whilst under care in a Military Hospital for retention of urine. There was great induration from old disease in the perinæum. No catheter could be passed. The operation of perineal section was, under these circumstances, performed without a guide, a staff being passed down to the stricture and then cut open. A flexible catheter passed from the perineal wound was retained in the bladder. The man has progressed very fairly, but as yet the wound remains open.

Case 2.—St. Mary's: Mr. Ure.—A man, aged 60, the subject of old standing stricture. Sloughing of the scrotum and penis was commencing, though there did not seem to have been any extravasation of urine. Perineal section was performed, and during it a large abscess was opened. Under treatment.

Case 3.—St. Thomas's: Mr. Solly.—A boy, aged 12, was admitted suffering from the consequences of a rupture of the urethra, caused by falling astride a barrel. The operation, which consisted in freely incising the urethra from the perinæum, was performed on June 4th, and death followed on the 12th.

Case 4.—Guy's: Mr. Cock.—An emaciated and cachectic man, aged 50, for thirty years the subject of a stricture. The urethra was quite impermeable; there were many fistulæ and much induration. Although for so long the subject of stricture, he had not suffered any material inconvenience until three years ago, when, after a blow on the perinæum, abscesses had formed. The urine was coagulable, and contained pus. Only a very slight quantity was voided by the urethra in micturition, the greater part passing by the fistulæ. The operation performed consisted in opening the urethra just anterior to the prostate. No attempt was made to divide the stricture. A flexible catheter was retained. All the fistulæ have since closed, and he now retains his urine well, and voids it wholly by the perineal wound. He is much improved in health. No water whatever passes by the penis, and the stricture would appear to be a permanent obliteration.

Case 5.—University College: Mr. Quain.—A man, aged 39, in poor health, and for three years the subject of stricture. There were no fistulæ. A grooved staff was introduced, and perineal section after the usual method was performed. Hæmorrhage succeeded the operation, and he died on the morning following.

Case 6.—St. Thomas's: Mr. South.—A man, aged 24. Admitted for rupture of the urethra, caused by falling astride a post. The perinæum was incised, and a good recovery followed.

PUNCTURE OF THE BLADDER.

Case 1.—Guy's: Mr. Cooper Forster.—A man, aged 54, for twenty years the subject of stricture, was admitted, exceedingly ill from the effects of a two-days' retention. There was much tenderness in the perinæum. The stricture being impassable, puncture by the rectum was performed, with immediate relief. The canula was retained four days, and on the day of its removal an abscess in the perinæum required puncture. Ten days later the perinæum sloughed, and a succession of rigors, with dry brown tongue, and other symptoms of pyæmia followed. A month later a No. 3 catheter was passed for the first time. The urine continued to pass partly by the rectum and in part by the perinæum. The operation was performed on January 1, and the man remained in Hospital till the end of February, when he left, still very ill. After this he quite recovered; and, excepting a small fistula through which some urine still flows, the wound perfectly healed.

REMOVAL OF THE TESTIS.

Case 1.—The London: Mr. Luke.—A man, aged 21, the subject of strumous disease of the right testis, which had existed for nearly five years. The gland was excised, and the operation was followed by a low form of phlegmonous erysipelas, which extended gradually over the lower part of the abdomen and into the thigh, and under which the patient gradually sunk. Death occurred eighteen days after the operation.

Case 2.—St. Bartholomew's: Mr. Lawrence.—A delicate man, aged 43, the subject for seven months of strumous disease of the testis. The gland was greatly enlarged, but no suppuration had occurred. After its extirpation, a severe attack of phlegmonous erysipelas occurred; but it was subdued, and a good recovery ensued.

Case 3.—St. Bartholomew's: Mr. Lawrence.—A mulatto, aged 29, the subject for thirteen months of strumous enlargement of the testis. No suppuration had occurred. Removal by the *écraseur* was attempted, but when nearly complete the instrument broke, and the knife had to be used to divide what remained. Two hours after removal hæmorrhage set in, and the only plan found efficient for controlling it was the pressure of the pad of a Signoroni's tourniquet screwed down on to the crest of the pubes. Some sloughing of the edges of the wound, probably from the bruising inflicted by the instrument, followed, but the patient ultimately recovered well.

Case 4.—St. Bartholomew's: Mr. Lloyd.—A man, aged 36. The whole testis and cord were converted into a hard mass, which, prior to the operation, all believed to be malignant. It proved, however, to be tuberculous only. The disease involved the cord higher than the external ring, and in the dissection the former was cut through a good half-inch above the latter. The man recovered well, and left the Hospital six weeks after the operation.

EXCISION OF THE TONGUE.

St. Thomas's: Mr. Simon.—A man, aged 50, the subject of epithelial cancer of the centre of the tongue. The anterior two-thirds of the organ required removal. It was intended to perform the section by means of the *écraseur*, but owing to a mischance in its application it was laid aside, and the knife used. The bleeding was free, but not very profuse. For two days afterwards the man had to be fed by the stomach-pump. Secondary hæmorrhage occurred on the twenty-third day, but was arrested by the use of a ligature. The man left the Hospital well three weeks after the operation.

REMOVAL OF EXOSTOSIS.

Case 1.—St. Thomas's: Mr. Le Gros Clarke.—A lad, aged 16, excision of an exostosis, the size of a nutmeg, from the inner part of the femur, a little above the knee. Recovered.
Case 2.—The Metropolitan Free: Mr. Hutchinson.—Excision of a sub-ungual from the great toe of a girl aged 20. Recovery.
Case 3.—King's College: Mr. Fergusson.—Excision of an exostosis from the inner part of the femur, just above the knee-joint. Recovery.

OPERATIONS FOR THE RADICAL CURE OF HERNIA.

Case 1.—St. Thomas's: Mr. Solly.—A married woman, aged 29, the subject of a large ventral hernia of long standing. The integument had ulcerated in four places, and the hernia caused her great annoyance. She recovered well after the operation.

Case 2.—University College: Mr. Erichsen.—A healthy man, aged 21. The hernia was a left inguinal one, and had protruded for the first time about two months before. Wütz er's operation was performed on March 4th, and the apparatus was removed on the 11th. No ill symptoms had occurred, and the patient was discharged cured on April 6.

Case 3.—University College: Mr. Erichsen.—A man, aged 22, for one year the subject of inguinal hernia. Wütz er's procedure was adopted, and without ill symptoms; but on the day after the removal of the clamp he, contrary to orders, got up and walked about the ward. The hernia redescended. He was discharged nowise benefitted.

Case 4.—The Metropolitan Free: Mr. Hutchinson.—A man, aged 46, the subject of double inguinal hernia. Wütz er's procedure was adopted on the left side, and with perfect suc-

cess; the clamp was retained without a single ill symptom for twelve days. The hernia has not come down, although five months have now elapsed since the operation.

Case 5.—The Metropolitan Free: Mr. Hutchinson.—A man, aged 45, the subject of chronic bronchitis, and also of an enormous scrotal hernia. No truss had been found effectual in retaining the rupture in place. Wützer's apparatus was applied, but owing to the pain and irritation caused it was of necessity removed on the fourth day. The gut again descended, and no benefit was obtained.

Case 6.—St. Bartholomew's: Mr. Coote. In this case Wützer's operation was successfully performed for a reducible inguinal hernia of 18 months' standing. The clamp was removed on the 7th day, and the plug remained firmly adherent.

AMUSSAT'S OPERATION.

King's College: Mr. Partridge.—A man, aged 46, the subject of malignant disease of the rectum, and for six months liable to attacks of constipation. The colon was opened in the left loin. Death from exhaustion, etc., on the second day. At the autopsy the peritonæum was found intact and not inflamed. The sigmoid flexure of colon was still enormously distended, the tract above the seat of operation being only slightly so. At one part the rectum appeared to be entirely occluded by cancerous growth.

GREAT NORTHERN HOSPITAL.

NECROSIS OF RADIUS.—EXCISION OF THE ENTIRE SHAFT.

(Under the care of Mr. SAVORY.)

(Reported by Mr. PAUL BELCHER, House-Surgeon.)

September 29th.—Thomas K—, a boy aged 9 years, admitted into the Great Northern Hospital under the care of Mr. Savory, with necrosis of the right radius. There are four fistulous openings leading to the radius, which can be distinctly felt bare. The highest aperture is near the upper extremity of the bone, and the two lower (one of which is in front) are near the wrist. No loose fragments of bone can be detected. The elbow and wrist joints move freely. The boy states that nine months ago he first perceived pain of a slightly intermitting character, but always aggravated at night, over the styloid process of the radius. Shortly afterwards abscesses formed in the wrist, and on the front of the fore-arm, just below the bend of the elbow. He was under treatment in the country, but the arm grew worse. At the beginning of August last he became a patient at the Royal General Dispensary under Mr. Savory, who watched the case and finally admitted him here for operation.

Considering the present condition of the limb, and the history and duration of the disease, there can be little doubt that a considerable portion of the radius is necrosed; and as the state of the boy's health appears to demand some interference, Mr. Savory proposes to remove the dead bone.

Oct. 2nd.—Chloroform having been given, Mr. Savory made an incision along the back of the forearm, over the middle two-thirds of the radius, and through the sinuses; the bone was at once exposed, and the whole shaft was found to be free from periosteum and dead; it was divided in the centre, and each half drawn out with the greatest facility; the articular extremities remained untouched, and the wrist and elbow joints therefore uninjured, and their movements unimpaired. The shaft had in all probability separated at the epiphyses, from the extremity of each of which new bone had been thrown out, so as to encase the ends of the necrosed shaft for an inch or more. There was scarcely any hæmorrhage, and the wound was closed by sutures and strapping. The forearm, supported by a bandage, was placed in a prone position, on a straight splint.

3rd.—Had a good night, the arm comfortable. Ordinary diet.

℞. Acid. nitr. dil. ɱvij; cinchon. decoct. ℥j ter die.

4th.—Slept very well. The wound dressed; the greater part has healed very perfectly by adhesion, and the remainder is granulating.

9th.—The wrist evincing a tendency to twist outwards; this was counteracted by placing a small splint on the radial side of the forearm, resting at each extremity, respectively, on the outer condyle of the humerus, and the styloid process of the radius, and therefore having an axis as nearly as possible identical with that of the removed shaft. The wound is nearly all closed, and the boy, in a much better state of health than on admission, left the Hospital.

The great object of future treatment, of course, will be to maintain the limb in a proper position, until a new shaft is provided.

We have given the above report exactly as sent to us. The case is of much interest, not so much in respect to the extent of the necrosis, since many similar ones have occurred, as on account of the prognosis. Will the shaft be restored? To return a satisfactory answer to this question, we must consider the pathology of the case; and, secondly, the actual results of experience. With regard to its pathology, it is well known that the necroses of young children are far more liable to be attended with deficient repair than those of adults. In them the periostitis is peracute, and the periosteum is often stripped off very quickly, and over a very large surface. This form is well illustrated by a specimen obtained by the writer some years ago, and now in the museum of St. Bartholomew's, in which the entire clavicle of a child was as perfectly and cleanly denuded of periosteum as if it had been soaked for a preparation. The bone was surrounded by a bag of pus, and stripped-off membrane had carried with it no osseous spiculæ whatever. The disease had only occupied a few days, and had followed a blow. Had the patient lived, there would probably have been little hope of the production of a substitute shaft. We suspect that the bone-producing power of periosteum alone has been much overrated. In all the forms of necrosis in which good substitute shafts are formed the disease has usually been but sub-acute, and has not only detached the investing membrane slowly, but has separated with it numerous spiculæ of bone. Excepting in young children, peracute simple periostitis is seldom seen. But any arguments drawn merely from pathological inference will be much less conclusive than those furnished by actual facts. As stated above, our own experience has been, that in young children the Surgeon's hopes of good reproduction of bone are not unfrequently doomed to be disappointed. The following case furnishes such an important fact in evidence, that we must cite it.

GUY'S HOSPITAL.

USEFUL ARM PRESERVED AFTER REMOVAL OF THE ENTIRE SHAFT OF THE ULNA, AND DISLOCATION OF THE RADIUS.

[Under the care of Mr. COCK.]

[The subjoined case and remarks were written out for our Hospital Reports about two years ago, but were not published. For certain reasons we prefer to retain them in their original wording.]

"There is a case now under the care of Mr. Cock in Lazarus Ward, Guy's Hospital, which is well worthy the inspection of any who take an interest in what is called Conservative Surgery. It is that of a young man, the whole shaft of whose right ulna was removed in early life, and has never been in any degree reproduced, but who yet enjoys excellent use of the extremity. It exhibits in a most striking manner the great powers which nature will exert in accommodating parts to conditions most different from those originally intended. And here it may be remarked, that it is a subject of great regret and of much loss to Surgical knowledge, that cases in which operations of what are termed the conservative class have been performed, are not watched over a longer series of years than is generally the case. There can be no doubt but that, if certain cases in which operations are performed, apparently without much of hope, were always seen again after a few years had elapsed, that the results obtained would often be found to far surpass the best that had been expected. The processes of nature in completing the re-adaptation of parts to their altered relations require time, but if due time be allowed the evidences of adaptive effort manifested are often surprisingly great. One might have supposed that a very useless sort of a member—an encumbrance rather than a help—would have resulted from the removal of the whole ulna, and the dislocation of the upper end of the radius; that such, however, is not necessarily the case, let the following narrative testify:—

"Samuel Daley, now aged 18, a healthy looking lad, is now under Mr. Cock's care, on account of an affection not in any

way connected with that which forms the main interest of his case. His right arm presents the following conditions:—There extends along the inner border of the fore-arm, almost from the wrist to the elbow, a linear cicatrix, beneath which the parts are somewhat fallen in, and the border, instead of being round and full, is concave. The styloid process of the ulna, and its whole lower articular head, may be felt in its place, but between this and the olecranon the bone is entirely deficient. The cicatrix marks no doubt the incisions by which the shaft was removed; and there would appear to have never since been the slightest attempt at reparation. The extremities of both articular ends are irregular, and much in the condition left at the time of separation. The olecranon is about an inch long, the shaft being abruptly deficient, with the exception that a very slender spicula, about two inches long, extends forwards from its inner border. The lower head of the bone is about half an inch long, and ends abruptly. The radius is dislocated forward, over the inner condyle of the humerus, and has there very free motion, being restrained only by membranous bands. The arm is thin, and the state of its bones in the respects adverted to are very easily made out. The lad states that he is right-handed, and always uses the affected arm. He is accustomed to wheel a barrow, to lift heavy weights; and accomplished all other necessary achievements with it. Its defect appears to be of remarkably little inconvenience to him. As to the history of the original disease, it appears that he was treated in St. George's Hospital, at the age of four, for necrosis of the bone, and that four operations for the removal of sequestra were performed."

Here then is a case of necrosis in a young child, in which not the least attempt at reproduction of bone ever took place. We may suitably append to it the particulars of the following one, which came under our notice in 1851. It is further interesting as being an exact parallel to Mr. Savory's, inasmuch as the same bone was affected:—Mary Ann H., aged 10, was admitted with necrosis of the right radius, and numerous sinuses. The attack was said to have begun without any injury, and was attended by extreme pain. She was admitted at one of the large Hospitals, and such was the degree of constitutional disturbance, that amputation was decided upon and the day fixed, when her friends refused to consent, and removed her. The sequestrum was extracted early in October, by a long incision in front of the arm; it comprised the entire shaft, the epiphyses excepted. This was about three months after the original inflammation, yet there was no formation of new bone. The writer has no note of the case later than December 10. At that time the incision had soundly healed, and all that could be felt in the line where the radius should be was a band of induration perfectly flexible, and which yielded on the slightest motion of the wrist. The girl appeared to be in excellent health, so that there was no reason, other than the essential nature of the disease, why the formation of a new shaft should not have commenced.

The case occurred at the Hospital for Skin Diseases, where the girl was under care for a cutaneous affection, when cured of which she unfortunately ceased to attend. It is possible that some one of our readers may have since seen her, and be able to inform us of the present state of the bone. We shall not neglect at some future time to inform the Profession as to the ultimate result in Mr. Savory's case.

NOTES AND QUERIES.

He that questioneth much shall learn much.—*Bacon.*

ANSWERS.

No. 217.—Early Use of Anæsthetics in Surgical Operations.

Your Correspondent, "G. M. O.," in Notes and Queries, No. 217, will find a formula for preparing and using an anæsthetic vapour, as early as the twelfth century, by referring to the last edition (the fourth) of Dr. Watson's Practice of Physic, vol. i. p. 122, so that it is quite possible the same formula may have been used in the sixteenth century!

Regent's-park, Oct. 19, 1857. H. L. Maysmor.

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Medical Times & Gazette.

SATURDAY, OCTOBER 31.

HOSPITAL ELECTIONS IN LONDON AND BIRMINGHAM.

Elections of a Surgeon to the Orthopædic Hospital, London and the Queen's Hospital, Birmingham, have just taken place The mode of election has been widely different in the two cases, yet in both a protest has been entered against the decision of the electors.

The circumstances of the Orthopædic Hospital election have been for some weeks past before our readers. To complete the history of the case it is only necessary to add that Mr. Adams polled 377 votes, and Mr. Brodhurst 277; that Mr. Adams was declared elected by a majority of 100; and that 654 persons voted either personally or by proxy, out of a constituency of upwards of 1300. According to a rule observed pretty generally in our London Hospitals, every subscriber who contributes to the support of the charity has a vote at the election of Medical Officers. Thus some thirteen or fourteen hundred voters had to be canvassed. Is it likely that mere Professional merit will turn the scale in such a contest? Can questions of Professional position be calmly or judiciously weighed by such a tribunal? Impossible. The battle is one of mere electioneering, and a hard battle it is. Thousands of letters to voters,—letters to friends to make interest with voters,—sometimes hundreds of pounds expended in the manufacture of voters,—a long bill for printing, advertising, and posting,—a wearying succession of calls upon busy shopkeepers, benevolent ladies, and wealthy life-governors,—a scramble for testimonials,—and all this derogatory and distasteful work is made absolutely necessary for a successful canvass. Then, in this case, come rumours of very sharp practice, which remind one of the famous election at Eatanswill, in the golden age of Pickwick, and a scrutiny of the voters is demanded. In fact, we have all the delightful excitement of a contested election. The moral is a text we have often "improved." The important responsibility of electing the Medical officers of our Charities ought not to be given to, or rather forced upon, all the subscribers to the institution. A well-selected Committee, acting in concert with the existing Medical staff, should be entrusted with the duty of filling up all Medical appointments. Science and humanity demand that these important posts should be filled by efficient men; and there is a far better chance of purity of election in a small responsible body of gentlemen of education, than in a large body of subscribers, whose only qualification is a contribution of a guinea a year.

In London the evils of the existing system are manifest. We have exposed them over and over again. But it cannot be repeated too often, that there is not a single appointment in

any one of our large Hospitals fairly open to scientific competition. Birmingham, not long ago, set us a bright example. There was a vacancy for a Physician at the Queen's Hospital. Candidates were invited from the whole Profession. The election was made by the Council, guided by a report of the existing Medical officers, in which they published the grounds upon which they selected Dr. Fleming. An important post was well filled. The Profession ratified the award, and hard-working men of no wealth and little influence felt that a brighter day was dawning upon them.

Now for the reverse of the picture. A Surgeoncy becomes vacant at the same Hospital. A general invitation is again sent forth. Several candidates are again attracted. Their qualifications are examined by the Medical staff, and the following report is presented to the Council of Queen's College:—

"The Professors in Medicine and Surgery of the Queen's College at Birmingham having been requested by the Council to report on the testimonials of the candidates for the office of Surgeon to the Queen's Hospital, specifying the names of such candidates as in their judgment are qualified and eligible, and in their opinion best fitted to fill the vacant appointment, and the grounds of their recommendation, have to report that six applications have been received, namely, from

"Mr. Joseph Sampson Gamgee, Staff-Surgeon of the First Class, principal Medical Officer of the British Italian Legion during the war, late Assistant-Surgeon to the Royal Free Hospital, London, House-Surgeon and Ophthalmic Surgeon's Assistant at University College Hospital.

"Mr. Benjamin Hunt, late House-Surgeon of University College Hospital, late Resident Physician's Clinical Assistant at the Hospital for Consumption at Brompton, late House-Surgeon to the Kent County Hospital for Diseases of the Eye and Ear, and late Medical Officer of the Queen's Hospital.

"Mr. Thomas Furneaux Jordan, late Resident Surgeon of the Warneford Hospital and Bathing Institution, Leamington, and Junior Anatomical Demonstrator at Queen's College.

"Mr. Henry Lakin, Surgeon to the General Dispensary, late Assistant-Surgeon Dreadnought Hospital-ship, Greenwich, late Assistant-Surgeon Smyrna Hospital and General Hospital before Sebastopol.

"Mr. James William Moore, Surgeon in the Bombay Army, Honourable East India Company's Service, late Resident Medical Officer of the Queen's Hospital.

"Mr. James F. West, late Resident Medical Officer of the Queen's Hospital.

"That after mature and careful examination of the testimonials of the respective candidates, the Professors report that all the candidates are both qualified and eligible.

"That in their judgment Mr. Joseph Sampson Gamgee appears best fitted for the appointment."

The grounds on which the recommendation is made are then fully stated, and the Council thereupon elect Mr. West by a majority of one. The Council is to be called upon to reconsider its decision, on the ground that canvassing was resorted to by the friends of Mr. West, in defiance of the rule distinctly laid down in the advertisements inviting competition. But we take higher ground than this. The Professors have discharged their duty of selection with integrity and ability, and their unanimous recommendation of Mr. Gamgee has been ignored by the Council. Messrs. Hunt, Jordan, and Lakin, who are all known as able men, are also passed over, though they have all held office in the Hospital and College. The friends of Dr. West insist that the Council should not be *obliged* to appoint the man *recommended* to them by the Medical Committee, and assert that the Committee has excited opposition by the arrogation of too much power. They add that Mr. West has been House Surgeon at the Queen's Hospital for three years, that he is very much liked by the Students, and that he is a sound and superior Surgeon, in whose hands the interest of the patients will not suffer. They do not deny that at least one of the Council had promised to support Mr. West before it was known who the other candidates were, but they do deny most emphatically that the election of Mr. West is disapproved by the Medical Profession of Birmingham. All this should have its due weight. We by no means assert or imply that Mr. Gamgee is better qualified for the post than Mr. West; but we do say that, as the Medical Committee have made known the grounds on which they recommended Mr. Gamgee, the Council are bound to make known why they ignored that recommendation, and to clear themselves from the suspicion under which they now suffer. The Council now rests under the grave charges of sacrificing public duty to private interests, and of bringing discredit upon a mode of election which has been regarded as a means of reforming existing abuses. It was always felt that a small body of men would be open to favouritism and family influence, but it has been hoped that publicity and responsibility would be an effectual safeguard, where honour and principle failed to keep men in the straight path of duty and honesty. The Council of Queen's College, Birmingham, have shown that this hope may be fallacious. There is yet time to prove, if they can, that although appearances are against them, they have done the thing that is right. If they should become conscious of error, they have the opportunity of reconsidering their decision. Let them do so, and at the same time let them remember that according to the ability of their Medical officers is the income of the Hospital expended for good or for evil. Let them consider that upon the efficiency of these officers depend not only the health and life of the poor, but the education of a large number of the rising generation of Medical men; and let them determine upon honour and conscience that no secret or family influence exerted in favour of one candidate, shall be considered for a moment when weighed in the balance against the scientific claims of a meritorious rival. They have a sacred duty to discharge. They are the trustees of bygone charity. If they betray their trust, indifference, negligence, or kind feelings to an old friend, will be no excuse before God or man. We say to them as we have said on a similar occasion, "Job what you will, but do not job the mangled limbs, the diseased organs of life, the bodily infirmities of the poor. Let there be no suspicion as to the capacity of those who are to educate the young men who are, in after life, to be the Medical Practitioners of the country."

THE WEEK.

The whole Profession will hear with unmixed satisfaction that the veteran Travers is to be appointed Serjeant-surgeon to the Queen. His high standing in our ranks, the reputation he has so well earned by his works and long years of practice, and the warm esteem his amiable character and gentlemanlike conduct have procured for him, render the appointment a most popular one. The salary is £280 per annum, but the post is chiefly valuable as the highest honorary appointment open to a Surgeon. Long may the successor of Wiseman and Cheselden enjoy his honours! Mr. Cæsar Hawkins succeeds to the post of Surgeon-extraordinary to the Queen, which Mr. Travers gives up on obtaining the Serjeant-surgeoncy; and we may add that this appointment will also meet with general approbation.

We congratulate Oxford, the Medical Profession, and the public, on the election of Dr. Acland to the chair of Clinical Medicine at the University of Oxford. The numbers were, for Dr. Acland, 470, for Dr. Jackson, 222. We have not a word to say against Dr. Jackson, as an accomplished physician and a gentleman; but the claims of Dr. Acland to the chair were so undeniable that his election will be welcomed as a great gain to the University, and to the cause of English education.

The fate of the Sydenham Society is to be decided on next Saturday. At the last special meeting resolutions were passed, having for their object the winding up the affairs of the Society, and its dissolution. This decision is to be reconsidered on the 7th inst. A strong feeling exists in many quarters that the step contemplated would be a great misfortune to our professional literature, and we understand that an attempt to reorganise the Society will be made. At any rate, it is exceedingly to be desired that the meeting should be a full one, and that a free interchange of opinion should take place.

We may congratulate ourselves on the fact that the days of slaughter-houses in London are numbered. The justices in petty session have refused a great many licences this year, and so soon as public abattoirs shall be established, as they must be, all slaughtering within the precincts of the metropolis will be done away with. One urgent reason for accelerating their abolition will be found in the fact, that such is the difficulty at times of getting rid of the garbage and offal, that the butchers are under strong temptations to put it into the sewers, where it adds to the poisonous streams that infest our noses at every gulley-hole. A notable instance of this was lately brought to light in Mayfair. Several houses in the vicinity of a slaughter-house and of a cowshed were constantly filled with offensive smells. Under the directions of Dr. Druitt, the Medical Officer of Health, the Inspector of Nuisances examined and caused the removal of cesspools and untrapped gulleys on the premises. Next the cowshed was shut up. Then the slaughter-house was incessantly visited, and found sweet above ground. But the ill smells still prevailing, the Medical Officer of Health induced the parish surveyors to examine into an old and disused sewer, which appeared from the map to run under the premises complained of, and which had never been examined within the memory of the oldest employé in the Sewers Department. The old sewer in question is a gigantic affair—nine feet in height. It was originally the main trunk of the King's Scholars' Pond; a stream which once ran purling down from Hampstead along the course now marked by Marylebone-lane, South Molton-street, Avery-row, South Burton-mews, Lansdowne-passage, and Shepherd's-market; then across the Green Park, close by Buckingham Palace, to the Thames. The brook of the last century is the foul sewer of the present day. Its course has been partially altered, and this gigantic underground tunnel runs from the top of Half-Moon-street, under one of the houses, and under the slaughter-house in the rear; then skirts the back of Cambridge House, and passes obliquely under other houses in the lower part of Piccadilly, to join the newly-made trunk under the Green Park. Well, this old sewer was found in a state that appalled even the sewers men, used as they are to the reverse of what is fragrant. It was filled up to the level of four feet with garbage, which had been thrown into it from the slaughter-house. Some was fresh, and some apparently had been there for twenty years. The sewer was so full of foul gas, that the men were afraid to venture in with lights till the place had been ventilated, *i.e.* till these foul gases had been sent up to taint the air above; and there were legions of rats preying on the garbage, and ready to make a meal of any intruders. Of course, this abominable deposit was removed at the expense of the butcher, who thought himself lucky in being allowed to escape so lightly; but men and carts were occupied every night for seven successive nights ere the work was done. Dr. Druitt gave written directions for the employment of disinfecting agents, so that the deed was done without offence to the neighbours. This is on a large scale what will often happen on a smaller scale. We believe that the Bond-street fishmongers make no scruple of getting rid of putrid fish in the same way. As a general sanitary rule, we may lay it down that it ought to be the aim of the Legislature to diminish to a minimum the amount of putrifiable matter which is brought into the heart of densely populated districts.

An esteemed correspondent, writing to us upon the alleged case of procuring abortion at Tonbridge, raises a question of considerable ethical importance—the Code Medical and the Code Moral. He says, "It is greatly to be regretted that the case was ever brought into court. In all such instances the Medical Profession loses in public estimation; for, totally irrespective of the fact of the accused being a member of it, the circumstance of the adverse Medical opinions being bandied about by the lawyers invariably leads to a lowering of the Profession in the public mind. It appears that the original charge of defamation and of 'conspiracy' also is to be proceeded with; and we are to have the public papers again gratifying their readers with the details of the safest and easiest modes of procuring abortion; for no doubt the plea of justification as well as of non-malice will be given in by the defendant. No matter what the result, the gentlemen of the long robe, and those of the long bill also, will glean a rich harvest, and the Medical Profession will be still further deteriorated. I should like to hear the opinion of some of the members of the Medical Profession with regard to the course which ought to be pursued in cases similar to that at Tonbridge. What is to be done upon a Medical man becoming acquainted with the allegation of such a crime? A code of Medical Ethics might say, Either leave the matter alone, or wait on your erring brother, and inform him of the accusation. On the other hand, the Moral Code and the laws of the country would require him to inform the authorities. Where is the line to be drawn, and what crimes are to stand on either side of it? Suppose the accused was a layman or a quack, great would have been the laudation of the person who exposed the alleged malpractice. Suppose, instead of the case having been dismissed, that it went before a jury, and the defendant was found guilty, would you still have reprobated the conduct of the Medical accuser? This question concerns the whole Profession—pray give it your attention. Finally, suppose it was a case of murder, as happened in the instances of Webster in America and Palmer in England, instead of procured abortion, which came to the knowledge of the Medical man—by which code should he act, the Medical or the Moral?"

The following paragraph appears in Dr. R. D. Thomson's last monthly report on "The Health of Marylebone." This Report is extensively circulated in this large parish. Comment is needless:—

"The mortality from cancer being very high in this parish, it may be necessary to state that the Middlesex Hospital possesses a fund, which nowhere else exists, for the permanent support of persons afflicted with cancer. I am indebted to the surgeons of that establishment for a report on a new method of treating the disease, which has been suggested by Dr. Fell, an American surgeon. This gentleman, most honourably to himself, has explained his mode of treatment, and has applied his remedies on sixty patients in the Hospital since the beginning of the year, under the supervision of the surgeons of that valuable Institution. The new feature in the plan consists in the production of parallel scratches or shallow incisions in the skin, around the cancer (previously charred with nitric acid), into which a caustic is introduced. The escharotic used in these cases consisted of two ounces of decoction of blood-root (sanguinaria), and two ounces of chloride of zinc, made into a paste with flour. The surgeons report that the advantage of gradual incisions claims hence-

forth their very frequent adoption in the treatment of cancerous tumours, as well as a grateful acknowledgment of the ingenuity of their inventor.'"

The following notice as to Cholera is given in the Weekly return of the Board of Health upon the Health of the Metropolis :—"It is important for Metropolitan Officers of Health to be aware that cases of Asiatic Cholera have already occurred in the neighbourhood of London. In one group of houses in the suburban district of West Ham, twenty-two cases of this disease have occurred since the beginning of October; and of these seven have resulted in death. The duration of some of the fatal cases has been remarkably short, in two instances as short as four and six and a half hours respectively. The sanitary condition of the district is utterly bad. It is intersected with sewage-ditches, from which part of the population derives its water-supply. The soil is sodden with the drainage of surrounding districts, as well as with its own refuse. The pump-waters are necessarily foul; and there is great reason to believe that the above-mentioned twenty-two cases of disease, as well as another which terminated fatally at Pelton-place, Bromley, were occasioned by the use of impure pump-water at the seat of the outbreak."

The admirable report of Dr. Taylor upon the human remains and clothing found on Waterloo-bridge published in a preceding page, so entirely exhausts the Medico-legal questions called forth by the case, that we need only refer to the report and accompanying engraving to put our readers in full possession of all that can be known on the subject until fresh evidence be obtained. It is very satisfactory to find that our denial of any Medical student tricks having anything to do with the matter is quite borne out by Dr. Taylor. It is much too serious a business for a hoax, and it is probable that the murderers have rejoiced in the gullibility of the public, and the facility for the concealment of a foul murder which such a suggestion throws open. A similar rumour as to Medical Students was circulated when the first part of the remains of Greenacre's victim was found, and was only quieted when the others were discovered. In the Waterloo-bridge case it is probable that the remaining parts of the body have been already disposed of, and are now lying deep in the mud of the Thames between London and Sea-reach.

Another Cancer-curer is in the field. Some time ago an advertisement appeared in the *Times*, inviting the co-operation of a Surgeon in a good professional position. Here is the reply :—

27, ——— street.

"Sir,—In reply to your letter in answer to the advertisement requiring the co-operation of a Medical man, etc., it is desirable to state before appointing an interview, that 'Medicus' is a lady of good birth, position and education—possessing an independent property, etc., who has discovered a cure for cancer; which for the benefit of suffering humanity she is anxious to afford the benefit to the public at large; and by which she expects to realize a considerable fortune. She has already tried it with entire success, but cannot conveniently execute her plans without the co-operation of a gentleman (Surgeon) of character, with a superior practice at the West-end; to whom every satisfactory particulars and reference would be given. Should the proposition be entertained, the lady will require certain pecuniary advances, as a return for the benefit, which must inevitably arise from the proposed connexion; but the repayment of which will be secured through the arrangement itself, and in case of deficiency from that source, from her own private property. With these preliminary explanations, the lady will be happy to make an appointment for an interview, on receiving a communication addressed to her, as 'Medicus.'"

REVIEWS.

Lectures on the Principles and Practice of Physic; delivered at King's College, London. By Thomas Watson, M.D. F.R.C.P., etc. Fourth Edition, revised and enlarged. London: 1857. 8vo. 2 vols. Pp. 984.

The third edition of these Lectures has been for some time out of print. The fourth now appears, so carefully revised as to add considerably to the value of a book already acknowledged, wherever the English language is read, to be beyond all comparison the best systematic work on the Principles and Practice of Physic in the whole range of Medical literature. Every lecture contains proofs of the extreme anxiety of the author to keep pace with the advancing knowledge of the day, and to bring the results of the labours, not only of physicians, but of chemists and histologists, before his readers, wherever they can be turned to useful account. And this is done with such a cordial appreciation of the merit due to the industrious observer, such a generous desire to encourage younger and rising men, and such a candid acknowledgment of his own obligations to them, that one scarcely knows whether to admire most the pure, simple, forcible English—the vast amount of useful practical information condensed into the Lectures—or the manly, kind-hearted, unassuming character of the lecturer shining through his work. One extract may serve to prove all this. We take it, almost at random, from the lecture on Continued Fever :—

"For a long time I held, in common, I believe, with most English physicians, that no definite line of genuine distinction could be drawn between the various forms of continued fever met with in this country. I was indeed aware—it was impossible to be long engaged in hospital practice without becoming aware—that different epidemics presented very striking features of diversity, and even of contrast—so as to suggest the frequent suspicion that the maladies composing them might be specifically distinct. Still, taking into account their strong general resemblance—finding that these like, yet varying forms, were often, more or less, intermixed—noticing also that other distempers fluctuated in type, that within the last twenty years all acute disorders had assumed, in this town at least, an altered and more asthenic character, I conceived, and I taught, that the differences to which I have adverted in the aspect and phenomena of continued fever, depended more upon what is called the epidemic constitution, —that is to say, more upon an acquired disposition of the human body produced by some obscure general influence, and therefore affecting the entire London community,—than upon any essential difference in the nature of the disease itself, or in the virus from which (as I believed) it sprang.

"But I think so no longer. The Dr. Jenner of our time, with patience and sagacity worthy of the great name he bears, has traced out plain lines of division between two or three forms of continued fever, and especially between two forms, which had been chiefly confounded together, and which we now call respectively *typhus* and *typhoid* fever. In the affinity of these names is still implied the similarity of the two disorders; but Dr. Jenner has shown, by evidence which quite satisfies my mind, that they differ notably and constantly in their symptoms and course, in their duration, in their comparative fatality, in the superficial markings which respectively belong to them, and which warrant our classing them among the exanthemata, in the internal organic changes with which they are severally attended, and (what is the most important, the most conclusive, and the most difficult point to determine of all) in their exciting causes. For some reasons it may be regretted that names so much alike should have been given to diseases which are really distinct; yet even this may be not without its advantage, if it keep the attention of the observer on the alert to discriminate between the two kindred disorders. For my own part, I could have wished that typhoid fever had been named, as Dr. William Budd names it, *intestinal* fever."—P. 795. (a)

We quote this passage with additional pleasure as Dr. Jenner's lectures on fever appeared first in our columns.

(a) It is a bare act of justice to record, that so early as the spring o 1840 a paper was read before the Parisian Medical Society, by Dr. Alexander P. Stewart, in which the main distinctions between typhus and typhoid fever were clearly set forth. And in 1842, Dr. Bartlett's excellent book on Fever testified to the same distinctions, as he had noticed them in the United States.

But far more recent researches than those of Dr. Jenner are laid under contribution by Dr. Watson, and the observers receive their meed of appreciation. Here is a paragraph as to the supra-renal capsules :—

"In former courses of these Lectures I have said nothing—for I knew nothing—of the morbid conditions of the *supra-renal capsules*. I was ignorant alike of their physiology and of their pathology, of their uses and of their diseases. A pathology, however, they have, which vindicates the importance of these little organs in the bodily economy, although it does not disclose their purpose. The suspension of their function (the necessary result of the destruction, or of the extensive impairment of their structure), is fatal to life ; and this mortal inward change is revealed before death by one very conspicuous signal—unregarded, indeed, till our own day, and reserved for the sagacity of our distinguished countryman, Dr. Addison, to discern and to interpret. It is very remarkable that two physicians, living at the same time, in the same town, and attached to the same Hospital, should have brought to light two most serious forms of disease, utterly unknown before, in parts of the body so contiguous ; and have thereby won for themselves an enduring place in the records of Medical science. Henceforward, the names of Bright and of Addison must be held in honourable remembrance whenever mention is made of renal and supra-renal pathology."—P. 727.

The latest experiments of Brown-Séquard illustrative of the physiology of the spinal chord are brought to bear upon the diseases of the nervous system. Sir David Brewster's late paper on Muscæ Volitantes is epitomised in the lecture on Amaurosis. Palmer's case is used in pointing out the diagnosis of tetanus and stryehnia poisoning. The most recent specimens brought before the Pathological Society are described in discussing questions so lately raised respecting disease of the supra-renal capsules. Even the experiments of Dr. Richardson upon the production of rheumatism and endocarditis by the injection of lactic acid into the blood by way of the peritonæum, and which have only been made known as yet through this Journal, are not lost sight of. These are but a few of the many instances proving the conscientious care of the author in the revision of this edition of his Lectures,—a care the more praiseworthy, when "want of leisure" can be pleaded with undoubted justice as well as "unceasing demands upon his whole time, strength, and thoughts, by the more imperative obligations of his professional life."

The Science and Art of Surgery : being a Treatise on Surgical Injuries, Diseases, and Operations. By John Erichsen. 2nd edition. 8vo. Pp. 1040. London : 1857.

The favourable impression made by the first edition of this work is maintained and strengthened by the second. A hundred and sixty new woodcuts, considerable additions to the text, and very careful revision of every chapter, are features in this new edition most creditable to the author. It requires no small power of condensation, no slight tact and judgment, to prepare a work within a moderate compass on so wide a subject as the science and art of Surgery, which shall descend with sufficient minuteness into practical details to become useful at the bed-side, and at the same time shall expound those principles which are to guide the student in his studies of Surgical science. Mr. Erichsen's task was a most difficult one, and he has accomplished it in a manner which entitles his work to a place beside Watson's Lectures on the Sister Science. It would not be easy to award any surgical work a higher meed of praise.

Prostitution, considered in its Moral, Social, and Sanitary Aspects in London and other large Cities. With Proposals for the Mitigation and Prevention of its attendant Evils. By William Acton, M.R.C.S. Pp. 189. London : 1857.

The subject here treated at length by Mr. Acton is one which, in spite of its difficulty and delicacy, must occasionally force itself upon the attention of the philosopher, the statesman, and the divine. In this country the whole question of Prostitution is generally ignored, and its consequences, being regarded as the punishment of irregularity and vice, attract no public notice and very little sympathy. Hence there is only one Hospital in London where venereal diseases are specially treated, and in most other hospitals and charities of this country this class of affections meets only with casual and uncertain attention. The females who propagate and maintain these diseases, and often entail them upon an innocent posterity, are allowed, without supervision, to pursue their dangerous calling, so long as they abstain from an open infraction of the laws. Mr. Acton mentions the fact of his seeing a well-dressed woman with an aggravated form of venereal disease attending the out-patients' department at St. Bartholmew's Hospital in the morning, and seeing the same woman plying her disgusting trade in the street in the same evening. By the system of out-door treatment only a very partial good is affected ; the patient pursues her avocations as usual, and thus her cure is retarded ; while she remains a living source of pestilence to any misguided persons of the other sex who yield to her solicitations. In many other capitals, prostitution is controlled and protected by the State ; and while a strict supervision is maintained over the women who gain their living by public prostitution, yet the same persons, when they become infected, are taken into hospitals and prevented from resuming their avocations until they are cured. That the Continental system of managing these affairs is far from perfect, is pretty generally acknowledged ; for, in the first place, the means adopted for controlling prostitution are of such an arbitrary character, and interfere so much with individual liberty, as to be incompatible with rational freedom ; while it is abundantly evident that they fail in their object, as is manifest by the great prevalence of venereal diseases in foreign cities. It is well known that public prostitution on the Continent does not by any means represent the amount of promiscuous intercourse between the sexes, which is carried on to an enormous extent under circumstances which do not call for the surveillance of the police. In this respect, without unduly vaunting our own superiority, we are probably somewhat better than our neighbours ; and although the evils of prostitution among us are much to be deplored, yet we doubt whether, notwithstanding police regulations, many of them are not as prevalent elsewhere as in England.

The objects of Mr. Acton's book are to urge the necessity of a thorough comprehension of the subject of Prostitution upon all who take an interest in social progress, among legislators, statisticians, and the instructors of youth. He describes the causes of prostitution as being chiefly the licentious habits of the men of the present day, the impediments placed upon marriage by our social condition, and the want of adequate employment for young women of the humbler classes. He quotes largely from Mr. Mayhew's graphic descriptions of some of the dens of infamy which are to be found under our very noses in this great metropolis ; and he shows, upon the same authority, that most of the women have been led into their wretched trade by sheer misery and destitution. He traces the progress of the harlot, from her first entrance into vice, through her various grades of splendour or of misery, to the termination of her career : and here we should remark, that Mr. Acton by no means considers that these women end their days in the miserable manner which is generally supposed ; on the contrary, he seems to think that the great proportion become disgusted with their calling, and sink down into quiet, obscure respectability, or patch up their reputations by marriage. We may add, that those who wish to investigate the important and difficult subject, will find much to instruct and interest them in the perusal of Mr. Acton's pages. The style of the various chapters is very unequal, and in some respects differs remarkably from that of Mr. Acton's previous writing. Possibly this may be explained by an acknowledgment in the preface of literary obligations to his *collaboratcur*, Mr. Horace Green.

PROGRESS OF MEDICAL SCIENCE.

Selections from Foreign Journals.

ON SOME OF THE PREVALENT ERRORS IN RELATION TO THE PREDISPOSITION TO HYSTERIA.

By M. BRIQUET.(a)

M. Briquet believes that most writers have been indebted more to their imagination than to the observation of facts for

(a) For an account of M. Briquet's statement as to the age when Hysteria occurs, see Medical Times, vol. xxxv. p. 19

the pictures they have drawn of this disease. It has been attributed by most of them either to unsatisfied sexual desires or to excessive excitement of the uterus and its appendages, and a fanciful etiology to correspond has been invented. The object of this paper is to show that these and other preconceived ideas have no solid foundation in fact.

1. The *hysterical constitution*, about which so many positive assertions have been made, has in fact no existence—the affection occurring in women having the most opposite external appearances. The author examined 425 cases of hysteria in this point of view: of these, as regards height, 127 were tall, 168 medium size, and 106 short: as to strength, 99 were strong, 36 medium, and 26 weak: as to flesh, 194 were stout, 106 medium, and 92 thin and spare: as to colour, 220 were fair, and 164 dark, 27 having the hair light, 39 black, 177 light chestnut, and 188 deep chestnut. In 168 the face was pale or brownish, and in 174 fresh coloured. Thus it will be seen these were the ordinary varieties met with among women in general.

2. The *temperament* is also various enough.—The following is the classification M. Briquet made of 383 cases. In 143 it was lymphatico-sanguineous, in 125 lymphatic, in 91 nervous or lymphatico nervous, in 12 bilious, and in 11 sanguineous. These are evidently very much the proportions that are found in females of from 15 to 30, part inhabitants of the country, and part of the towns, as was the case with these. At all events, there is no temperament that can properly be called hysterical.

3. *Moral Disposition.*—That which is not discoverable in the physical constitution of hysterical females is, however, very evident in their moral disposition. So much is this the case, that of 430 cases occurring to the author, not more than 20 at the utmost have not manifested it. The characteristic of this is marked *impressionability*, foreshadowed in childhood by great timidity, excessive susceptibility to blame, and a disposition to shed tears easily.

4. *Mode of Life.*—Another of the axioms that has been laid down as undoubted, is that hysteria is the prerogative of the wealthy and luxurious, and that poverty is a security against its occurrence. It is a complete error; the common people being the subjects of hysteria in almost a double proportion to the other classes. At a particular epoch M. Briquet visited all the female patients in the medical and surgical wards of La Charité, with the exception of those suffering from epilepsy, apoplexy, insanity or delirium. The number amounted to 203, and of these 65 were hysterical (38 with convulsive paroxysms), 49 were impressionable, and 89 only were neither hysterical or impressionable. Thus, among the common people there was 1 woman in 5 who had hysterical paroxysms, and 3 out of every 8 were the subjects of hysteria. So far from being exaggerated, the statement is rather below the truth. But where is the practitioner who meets with 3 cases of hysteria among 8 of his private patients? According to the experience of many M. Briquet has consulted upon the subject, there is about 1 in 8 or 10 in the easy classes of society, not alluding to the very highest. The charms and simplicity of a country life, too, have been sufficiently praised, and nervous diseases have been said to be the almost exclusive affliction of civic life. M. Forget in 1847 somewhat startled this belief by showing how frequently hysteria occurs among the simple Alsatian peasantry. M. Briquet has obtained cognizance of the place of abode and of early education in 324 cases of hysteria, and of these 168 were townborn and bred, and 156 from the country—the majority of these latter having in childhood laboured in the fields. In the case of 42 of these country girls their mothers had been hysterical, 29 suffering from paroxysmal attacks. Professor Lebert of Zurich also assures the author that hysteria is just as often seen in the poverty stricken cantons of Switzerland as in the most flourishing ones. A too tender and luxurous education has been assigned as a predisposing cause: but of 81 cases of hysteria occurring before the age of puberty, in 21 the harsh treatment they had been subjected to was the principal cause of the disease. A third portion of the author's collection of cases had been submitted to ill-treatment or privation during childhood. In place of a tender education being assigned as a predisposing cause it would be more just to thus stigmatize a harsh one.

5. *Continence* has been stated by many authors as an unnatural condition, predisposing to hysteria: but when it is remembered that the majority of cases occur between 12 and 20, we naturally ask at what age it becomes unnatural, as also for the explanation of the occurrence of the disease in 86 children under 12 years of age. Various authors since the time of Galen have deplored the fate of widows, as the necessary victims of hysteria; but in point of fact their solicitude has been little needed, inasmuch as among 375 cases collected by Landouzy only 12 of the subjects were widows, as were only 14 in the author's own 430 cases, *i. e.* 26 in 800 cases, or 1 in 30. Of the author's 14 cases, too, in 6 the hysteria appeared on the day of the husband's death, and in 4 during the first month after it, and should surely with more probability be referred to moral emotion. Hysteria has been said to be, on the one hand, common among nuns, and, on the other, rare among women who give free vent to their sexual desire. But in point of fact it is rare in convents, and is chiefly found in those in which there is great fasting and maceration. The reverse position so strongly maintained by authors may also be disposed of. Thus of 300 hysterical females above the age of 15, 139 were married or kept women, and among them had 367 children, not counting miscarriages. Among the 161 remaining, very few resigned themselves to continence. At the Lourcine, where syphilitic workwomen and servants repair, among 424 patients, 169 were hysterical. As to prostitutes, of 197 applying to St. Lazare on account of syphilis, 106 were hysterical, 28 very impressionable, and 65 neither hysterical or impressionable. It results from all this that continent women are rarely hysterical, those who do not observe continence are frequently the subjects of hysteria, while those who pursue the extreme of incontinence are the most liable of all. The reason is obvious. Among these different classes of women, the first lead peaceable lives, the second have much to go through, while the last are a prey to frequent and violent emotions. Next we may consider the effects of marriage on hysterical women, which, to judge from the statements made, have been truly remarkable. But among M. Landouzy's and the author's 800 cases, in only 29 instances did decided advantage follow marriage, notwithstanding the complex character of the modifications ensuing upon this state.

6. *Menstruation and Affections of the Uterus.*—This class of influences has been raised to the highest rank by those writers who are determined at placing the seat of hysteria in the uterus. 1. This has been supported by the supposed effects of normal or abnormal conditions of the menstruation. From the author's observations, however, made on 411 hysterical women, in but 136 had there been any derangement of the menses. Of 237 deliveries of hysterical women in but 12 were there any convulsive paroxysms, some of which too might have been examples of eclampsia. 2. According to authors it is common to observe hysteria in affections of the uterus. Now these diseases are exceedingly common, and the connexion ought to be easily demonstrable. But this is not the case, for Landouzy and other partizans of the opinion are able to collect but some 40 cases of affections of the genital organs giving rise to hysteria—few enough as compared with the thousands of cases daily occurring. Practitioners, moreover, having much to do with the various female diseases entirely deny such connexion.—*Union Médicale*, Nos. 36, 39, 40.

ON THE PREVENTION AND TREATMENT OF ABSCESS OF THE BREAST.

By Dr. FOSTER.

In this paper Dr. Foster gives an account of a mode of treatment which, he says, he has found in a large practice to be eminently successful.

1. *Preventive Treatment.*—This will be successful except under some of the following circumstances, viz.:—1. Where there exists a marked cachexia, due to syphilis, scrofula, and the like. 2. Where there has been an external injury. 3. When the nipple is in such a state as to absolutely obstruct the passage of the milk. 4. Where, as in hospitals occasionally, there exists an endemic tendency to purulent deposits. The preventive treatment, strictly speaking, should become an object of maternal care when the breasts undergo development at the period of puberty. The pressure of too tight clothing, though seemingly at the time of no consequence, may do great harm by leading to great de-

pression of the nipple. After delivery they may then have to be drawn out by breast-pumps or other painful appliances, and the inflammation induced may be propagated along the lactiferous tubes, and give rise to deep-seated abscess. This is a cause of breast abscess, in the prevention of which the practitioner has seldom much power; but if allowed to treat this depressed nipple during pregnancy, he may be enabled to obviate much inconvenience. In this condition a second development of the organ takes place, and by taking advantage of the increased nervous and vascular activity that prevails, he may be able to provide a good nipple by the period of lactation. The first precaution to take is to avoid all undue pressure from clothing, especially during the earlier months. The nipple is to be daily drawn out with moderate force, either by a breast-pump or by the mouth, suspending the traction for a few days at a time if soreness be produced. Astringent applications also harden the skin of the nipple, and of these none is better than the popular one, borax and brandy, which should be applied daily during the latter months.

"There is a certain danger attendant upon these manipulations of the nipple during pregnancy, which must not be lost sight of. It is possible, in this way, to stimulate the uterus into premature action, and so to provoke a miscarriage. But this can only occur in exceptional cases, and will probably give sufficient warning of its approach. Lest it should occur, it is well not to persist in drawing out the nipple longer than ten or fifteen minutes at a time, and to abandon the practice altogether should pelvic pains, or other symptoms of approaching labour manifest themselves. I have never seen a miscarriage so produced; but in one case the process had to be given up on account of the severe, contractile, uterine pains which followed each application of the pump."

The management of the nipples after delivery is familiar to all. Dr. Foster chiefly relies upon protecting the part from the friction of the clothes, admitting a free circulation of air around it, and the application of castor-oil after every time of sucking. "The neck of a common junk-bottle, cut off, made smooth, and worn constantly over the nipple, accomplishes the first two of these objects very satisfactorily in most cases."

With regard to the breast itself, the primary indication is to prevent the accumulation of the milk. Dr. Foster examines the breasts carefully on the second day, and, when there is the slightest hardness present, he directs the nurse to rub them well with warm oil *until they are soft*, repeating the operation as often as the hardness returns. When such direction is efficiently carried out (which, however, is rarely the case) it is worth all other means together. He does not repudiate cathartics, nauseants, and sudorifics, when inflammation is present, but even then he does not chiefly rely upon them for the prevention of the formation of matter, and he quite disapproves of the use of poultices as a means of resolving the induration.

"A great element of success is to commence early, *obsta principiis*. The rubber should stand behind the patient, and having lubricated the whole organ freely with oil, should use both hands, one for the friction, and the other for counter-pressure, rubbing in the direction of the milk ducts, *i.e.* from the periphery of the breast towards the nipple. If this is done with *firm pressure*, a few minutes will usually suffice to reduce the organ to a soft condition, and in the case the milk has come, it will flow freely from the nipple. If the child is vigorous, and takes the nipple well, there will usually be no need of pursuing this plan after two or three days. But it is desirable to keep an eye upon the organs, and in case any induration remains after nursing, to rub it away at once. I have intimated that it is difficult to get this well done. This is sometimes the fault of the patient, and sometimes of the nurse. The patient's breasts are very tender to the touch, and she thinks she cannot bear the rubbing; but if it is done rightly the pain will be of very short duration, and at the end of a few moments she will be able to bear any amount of pressure without suffering in the least. There seems to be a certain amount of tact requisite for this little manipulation, which many nurses never acquire. In such a case I think it is the duty of a medical attendant to lay aside all considerations of dignity, and do it himself. But as the physician cannot be constantly in attendance, it is necessary, if after one or two trials the induration is not permanently discussed, to resort to other means; and here we have a most invaluable resource in the *compressed sponge*. The mode of preparing the sponges is very simple. A selection should be made of specimens which combine softness with elasticity, and of a size to suit the indurated portion. After freeing them from sand, they should be dried, and then subjected to a heavy pressure for twenty-four hours. A common letter-copying press answers this purpose exceedingly well. They are then to be placed on the breast, and confined by a roller, after which they are to be thoroughly saturated with lukewarm water. The nipple should be left exposed, so that the child may nurse as usual."

2. *Treatment of Open Abscesses.*—For this purpose Dr. Foster has also employed these compressed sponges with the best results, and contrasts this plan favourably with the occlusion treatment of M. Chassaignac, although this latter is a great improvement upon that hitherto in use. He selects four cases from those that have occurred to him for narration. The efficacy of the sponges, he considers, to depend upon three things. 1. They enable us to apply uniform and, at the same time, gentle pressure. 2. They have all the emollient effect of a poultice. 3. They absorb the matter, or milk discharged, and promote its flow by capillary attraction.

In the same number of the Journal that contains Dr. Foster's paper is a Report by Dr. Johnson of 14 cases of open mammary abscess, treated at the Bellevue Hospital by this method. After reviewing the various modes of treating these troublesome cases, Dr. Johnson gives the entire preference to that recommended by Dr. Foster, and which in these instances was quite successful. He thus describes the method adopted:—"The softest pieces of sponge should be selected, each piece being large enough to cover the whole breast. The sponge should be carefully washed, and when it is thoroughly dried, it is to be compressed for a long time under a heavy weight, or between the lips of a carpenter's vice. The sponge, when thoroughly pressed, should be bound as firmly to the breast as the patient will allow, by means of a bandage passing several terms around the body above and below the other breast, a piece of lint being placed between the breast and the sponge to prevent the latter from irritating. It is then soaked with cold water, and the bandage preventing the sponge from expanding outward, its expansion makes the desired pressure upon the breast. The patient usually complains of pain for ten or fifteen minutes after the first application. The temperature of the water dressing is soon raised to that of the body, and thus we have the essential elements of a poultice—heat and moisture—without its inconvenience. This soft, yet firm, compression adapts itself evenly and equally to the whole breast, and the sponge not only forces out the matter, but absorbs it. The sponges are to be kept wet during the whole time of their application. The patient soon becomes accustomed to them, and the alleviation of the suffering is so great as to cause her to request a continuance of the treatment. The sponges should be renewed daily."—*New York Journ. of Med.*, Sept., pp. 179, 247.

PROVINCIAL CORRESPONDENCE.

IRELAND.

Dublin, Oct. 28, 1857.

The Session at the College of Surgeons was opened on Monday, the 26th instant, by Dr. Jacob, the learned Professor of Anatomy and Physiology, in a practical and highly useful address on the Wants and Prospects of the Medical Student, especially as these wants and prospects are modified by the recent Indian Insurrection. "Last year, in a piping time of peace," observed the Professor, "we spoke of preliminary education, and similar important topics; now we have to make preparation for war. We must bear in mind that in future we shall most probably not have the wide difference which now exists between the Company's and the Queen's service; but that any one henceforward entering the army must reckon on the likelihood of having to serve in India. A notion is abroad that attendance on a course of Logic will not be required for the army; but I can state that a certificate on this subject must be produced. Let us now see what part of your education is most deficient, and requires most to be attended to during the season now commencing. Operative

surgery is to be one of the most important points in your examination; and in this you will be tested *practically*, and very properly so. In this particular, many students from all the schools have been found wanting. What can we do to help you? Practical instruction is given here separately from the ordinary courses. We have hitherto not sufficiently availed ourselves of the opportunities the dissecting-room affords for practising operations. Catheterism, exploring the prostate and the fauces, plugging the nostrils, the use of the polypus forceps, the application of the stomach-pump, and even certain capital operations, such as cutting down on the femoral artery in the middle of the thigh, or on the popliteal artery, trepanning the skull, etc., may all be performed on the dead body, without spoiling the subject for subsequent dissection. Again, when done with the subject, the sawing of bones should be practised. There are three causes which lead to a man being a good operating Surgeon. First, having naturally a mechanical turn—(this is not necessarily connected with a high order of mind, and should not be too much relied on); secondly, practice—(practice will make a good workman of the most stupid man); thirdly, boldness. The race of bold men seems to be nearly gone; but men there were who dashed at anything they heard could be done, and it was wonderful what they used to effect. And their boldness you must perhaps imitate, before six months are about, upon the plains of Bengal. Looking to the present state of things, we must modify your Medical education: prominence must be given to the diseases of India. In the College we have the advantage of a Professorship of Military Surgery, and we are indebted to the Government for this foundation. Our Museum of Military Surgery now comes in well, and is highly deserving of your attention. Our present College owes its existence to a Military Surgeon, and a Scotchman too, Dr. Renny. It was his influence with the Government which led to its completion." Dr. Jacob concluded by urging the necessity of the Medical student being prepared for every emergency, and of his paying due attention to such subjects as General Anatomy, Chemistry, Botany, Medical Jurisprudence, Midwifery, and Comparative Anatomy.

On Monday the 27th instant, at noon, the new Medical College, recently erected in connexion with Madame Steevens' Hospital, was inaugurated by Sir Henry Marsh, Bart., President of the College of Physicians. Having pointed out the importance of the change recently effected in the Institution, by its conversion, through the liberality of an enlightened legislature, into what it should long since have been, a great Medico-Chirurgical College, and congratulated himself on having been the first to deliver a lecture within the walls of the new theatre, Sir Henry paid an eloquent tribute to the character and memory of the original founder of the Hospital, Dr. Richard Steevens, and to the noble and disinterested conduct of his maiden sister, in foregoing in favour of the sick poor the benefits she might have enjoyed under her brother's will, in consideration of which magnanimity the Hospital is often called by the denomination above given to it. Sir Henry then gave an interesting sketch of the history of the Hospital, and of the many distinguished men who have from time to time been connected with it, as physicians and as surgeons, and showed the means by which it had acquired its high celebrity as a school of clinical medicine and surgery. In referring to the services of Mr. S. A. Cusack, the present Resident Surgeon of the Hospital, in the Crimea, he forcibly advocated the claims of army surgeons, who had fearlessly discharged their duties under the fire of the enemy, to participate not only in the emoluments, but in the honours bestowed upon the officers of the British army; and concluded with an earnest exhortation to the professors of the New College, whom he saw around him, to discharge their important functions with fidelity and zeal. The theatre, which is exceedingly well arranged and commodious, was thronged to overflowing. Among those present were the Lord Chancellor, Sir Philip Crampton, Bart., and the leading members of the profession in Dublin. The museum, dissecting-room, chemical laboratory, and pupils' library, immediately adjoin the lecture theatre, and all are spacious, well-lighted, and well-ventilated apartments.

Mr. Smyly has been elected one of the examiners of the College of Surgeons, in the room of the late Dr. Bellingham. Having been on the Court before, and senior to the other examiners, he becomes Senior Examiner, or Chairman of the Court. Dr. Jerome Morgan has been elected Examiner in Midwifery, in the room of Dr. Hardy, who has resigned his examinership in consequence of having been appointed Professor of Midwifery to Steevens' Hospital.

GENERAL CORRESPONDENCE.

ELECTIONS AT THE ROYAL ORTHOPÆDIC HOSPITAL.

[To the Editor of the Medical Times and Gazette.]

Sir,—I must again trouble you with a letter on this subject. In your last number is a letter from Mr. Adams, composed of seven paragraphs, which contain six very inaccurate statements. They are as follow:—

"1. There has never been a senior Assistant-Surgeon of this Hospital, or any priority whatever between the two Assistant-Surgeons.

"2. I never entered into an agreement or understanding not to issue testimonials.

"3. The committee required testimonials to be furnished.

"4. I entered into no agreement not to canvass before the vacancy was declared.

"5. I sent the circular referred to because I had written evidence that my opponent's friends were actively canvassing on his behalf.

"6. I shall not observe upon your correspondent's letter, or upon his conduct in publishing a purely private letter."

The following are my answers:—

1. Mr. Adams and I were elected Assistant-Surgeons on the same day. I had a majority of eighty-nine votes; I was, consequently appointed Assistant-Surgeon to the Senior Surgeon, and my name was placed before that of Mr. Adams in the papers and books of the Hospital: priority was thus granted; and I confess that I am unable to distinguish between priority and seniority. These have hitherto, I believe, in Hospital language been considered to be equivalent terms.

2. Mr. Adams came to my house purposely to make the proposition with regard to testimonials. The proposition came from him, and was made in the presence of a friend of mine, who is not less confident than I am of the truth of my statement. Mr. Adams concluded by saying that it would be "derogatory to our positions" to issue testimonials. It was agreed between us that testimonials should not be issued, yet Mr. Adams immediately wrote for them.

3. Testimonials were not required, as will be seen by the following resolution of the committee:—"That a Special General Court be convened for Thursday, the 22nd of October, 1857, for the election of a successor to Mr. Lonsdale in the office of Surgeon to this Hospital. The ballot to commence at 12 o'clock and close at 5 o'clock on that day, and that the committee be requested to receive the applications, and examine the qualifications of candidates up to two o'clock on Thursday, October 15, 1857." In the Resolution the word "testimonial" does not occur, nor was I asked for testimonials.

4. If Mr. Adams entered into no written agreement not to canvass the Governors before the vacancy was declared, at least he promised not to do so; and a promise is as binding as an agreement with a gentleman. This question was discussed not only between ourselves, but by others; I took the opinion of the chairman of the committee, in committee, and he assured me that any candidate canvassing before the declaration of vacancy would be disqualified, as it was provided for by the rules of the Hospital.

5. Not a single vote was asked for me with my knowledge before the vacancy was declared, nor did a paper of any kind leave my house for this purpose until the declaration of a vacancy had appeared in the morning papers.

6. Mr. Tamplin's "purely private letter" was a circular, not in his handwriting, but signed by him. It was sent to many Governors, and amongst others to some of my own connexions who are subscribers to the Hospital.

These, Sir, are my answers. I leave it to the Profession to judge this question.

I am, &c. Bernard Brodhurst.

20, Grosvenor-street, October 28, 1857.

WET NURSES AND FOUNDLING HOSPITALS.

[To the Editor of the Medical Times and Gazette.]

Sir,—The brief notice which appeared in your Journal of the 24th inst., referring to the paper read by Dr. Routh before the Medical Society of London, on "The Mortality of Infants in Foundling Institutions," is likely to produce a false impression on the minds of those of your readers who may not have had an opportunity of knowing the nature of the various opinions brought forward on that occasion, both in the paper itself and in the discussion which took place after it was read.

Having attentively perused the report of the whole proceedings of that meeting, I arrive at the following conclusion, as the result of the various statements recorded :—That although a large number of deaths amongst infants may be attributed to the want of breast-milk, a want of proper food and a want of proper management are the sources of a larger amount of mortality. To the above named causes may be added, a want of intelligent and skilled nurses. Indeed, the whole secret of failure seems to lie in this latter want, good management being the most important element of success in rearing infants, next to mother's milk. These matters need investigation; and their importance should be duly weighed before the high rate in the mortality of infants can be fairly attributed to the absence of breast-milk. Dr. Routh closed the discussion alluded to by announcing his intention of considering the question of the "Influence of Diet," which would form the subject of a separate paper.

I trust you will give insertion to these remarks, as your very brief notice last week might mislead as to the purport of Dr. Routh's admirable paper, and might also give a false idea of the existing facts connected with this interesting subject.

I am, &c. M. A. B.

REPORTS OF SOCIETIES.

THE PATHOLOGICAL SOCIETY.

Tuesday, Oct. 20.

Dr. Watson, President, in the chair.

(Concluded from page 434.)

Dr. Peacock exhibited a specimen from a case of

LONG-STANDING DISEASE OF THE HEART WITHOUT SYMPTOMS.

The preparation had been removed from the body of a gentleman, 40 years of age, who had enjoyed fair health, and had had no serious disease till about three weeks before his death. He then took cold, and, living in an aguish district, had an attack of ague, and this was succeeded by dyspnœa, palpitation, œdema of the ankles, and other symptoms of cardiac disease. The heart's dulness was found increased in extent, and there was a loud systolic murmur heard most intensely at the base, and in the course of the aorta. He soon became anasarcous, had great dyspnœa, and the pulse was very irregular, and he died suddenly. The body was examined by Messrs. Beale and Williams, of Plaistow, under whose care the patient had been, and the heart was found greatly hypertrophied and dilated, especially the left ventricle, and the aortic valves were very greatly thickened and indurated, in places osseous, and united together so as to form a kind of diaphragm, extended across the orifice of the vessel, and perforated by a triangular aperture. Dr. Peacock expressed the opinion that the disease most probably originated in malformation of the valves, and that the thickening and induration had been the result of very slow change. The case was remarkable from the circumstance that, with such extensive disease, the patient had presented none of the ordinary symptoms of cardiac affection till the occurrence of the ague. The absence of the ordinary symptoms of obstruction was referable to the greatly lessened power of the left ventricle.

Dr. Graily Hewitt showed specimens of

INFLAMED VEINS FROM PHLEGMASIA DOLENS.

The patient, aged 33, the subject of the case, died in St. Mary's Hospital, under the care of Dr. Chambers, July 25, 1857. She had been delivered of a fourth child seven weeks previous to her death. On admission into the Hospital, six weeks after the labour, the left leg presented a well-marked example of phlegmasia dolens. An abscess formed just above the left groin a few days previous to the fatal event. The illness seemed to date from the eleventh day after labour, when she received a severe fright. The left common iliac vein is lined by a thickish membrane, presumed to be the remains of a plug, the other portions of which had been removed. This membrane extends upwards a short distance into the vena cava on its left side only. The external iliac and femoral veins (left) lined by a very fine membrane. A large abscess behind the left iliac veins, communicating with them at their junction to form the common iliac. A small abscess in wall of abdomen communicates with the superficial epigastric vein. The veins of the left side below the vena cava filled by a puriform fluid of the colour of café-au-lait. The abscess in the pelvis contained a fluid the colour of which was nearly identical with that in the veins. Vena cava inferior contains a different colour, and a mixture of red and whitish fluid. Right iliac veins filled with a fluid of this mixed character also. Joint at pubic symphisis filled with pus; cartilages destroyed. No abscesses in liver or lungs.

Mr. Lee asked how Dr. Hewitt knew that the fluid contained in the veins was really pus? He would not deny the possibility of the lining membrane of a vein secreting pus; but he felt certain that the opaque fluid usually found in connexion with phlebitis, and described as purulent, was in reality softened fibrin.

Dr. Hewitt replied that the fluid had been examined by the microscope, and in every respect corresponded with the characters of true pus, such, for instance, as was obtained from the joints in the same case.

Dr. Hewitt also exhibited a preparation showing

PERSISTENT DUCTUS ARTERIOSUS, &c.

The heart exhibited was that of a child three months old, and is remarkable for its small size, being rather less than a third of the size of a healthy heart from a child of the same age, with which it was compared. The foramen ovale open; the ductus arteriosus perfectly pervious, having at its junction with the aorta a diameter of three millimetres. The child at birth apparently healthy; had never received proper attention or been fed properly. Body and organs generally remarkably small.

Dr. Peacock inquired as to the supposed cause of the patency of the ductus arteriosus. It did not usually remain open unless there was some obstruction to the pulmonary circulation necessitating its doing so. From the specimen in its present state no opinion as to the nature of the obstruction could be arrived at, and he wished to know whether anything had been made out at the post mortem.

Dr. Hewitt replied that he had not discovered any cause. He could speak positively that there was no obstruction in the lungs themselves, no portion being in an unexpanded condition.

At the conclusion of the meeting

The President adverted to some matters respecting the future operations of the Society. Very great inconvenience had, he said, been experienced by the unreasonable delays on the part of exhibitors in sending in their reports to the Secretaries. It was due solely to remissness on this score that the volume for the present year was delayed later than usual. To meet the difficulty, the Council had decided to alter the rule respecting the time allowed, which at present required members to hand in their reports on the evening when their specimens were shown. This rule, from its almost impracticability, had been regarded by nearly all as a dead letter. The new rule, which it was intended to enforce, would allow a month to intervene between the exhibition and the sending in the reports. The Council had also, in consideration of the peculiar difficulties which attach to their study, and the great interest also belonging to them, determined to appoint a standing Committee of reference respecting Diseases of the Supra-renal Capsules. To this Committee all specimens brought before the Society would, with the permission of their exhibitors, be referred for report, and it would also be empowered to invite, in the name of the Society, the co-operation of the Profession generally in procuring recent specimens bearing upon these diseases. The names of the gentlemen on this Committee were Dr. Bristowe, Dr. Ogle, Dr. Wilks, Mr. Sibley, and Mr. Hutchinson.

UNIVERSITY OF ST. ANDREWS.

MEDICAL EXAMINATION PAPERS.

OCTOBER, 1857.

FIRST EXAMINATION.

FIRST PART.

Translation of a paragraph from Latin into English.

Give the derivations and primary meanings of the following words: — anæmia, cholesterine, cyanosis, dysmenorrhœa, dyspepsia, hypertrophy, stethoscope, teratology.

FIRST EXAMINATION.

SECOND PART.

Chemistry.

1. What are the leading combinations between nitrogen and oxygen, their chemical constitution, their modes of preparation, and principal properties?

2. State the respective modes of preparation, and chemical properties of chlorine, bromine, and iodine, and their analogies.

3. What are the chemical tests for potash, lime, barytes, lead, and copper?

4. What are the natures of fixed oils, and of saponification?

5. What are the chemical changes which attend respiration and the arterialization of the blood?

Materia Medica.

6. What compounds of iodine are used in medicine? Describe them, stating their modes of preparation, their uses and their average doses.

7. What are the pharmacopœial preparations of scammonium, jalapa, digitalis and colchicum? State their principal uses and average doses. What are the ordinary adulterations of the first named of these drugs, and how would you detect them?

8. Write a Latin prescription (without using abbreviations or symbols) for a mixture, suitable for a case of autumn diarrhœa; also for a dozen purgative pills containing croton oil.

SECOND EXAMINATION.

Anatomy and Physiology.

1. Describe the aorta from its origin to its termination, and give a sketch of the distribution of its principal branches.

2. Describe the distribution of the nerves in the hand, and state how the nerve-fibres terminate in the papillæ.

3. What are the principal means of determining the functions of particular nerves?

4. What is the ordinary temperature of the human body, and by what physiological and pathological conditions is it modified?

5. What are the principal arguments in favour of and against the existence of a plurality of species among mankind?

THIRD EXAMINATION.

N.B.—In answering the practical questions, the Examiners require every Candidate to specify the mode of treatment which he is in the habit of adopting, and the doses of the medicines which he prescribes.

Pathology and Practice of Physic.

1. What are the most important symptoms of disease presented by the tongue and gums?

2. What is the cause of death in cases of drowning? How long a period of entire submersion can be borne before death supervenes; and what treatment would you adopt in a case of apparent death from drowning?

3. Describe the symptoms and course of an ordinary case of small-pox, and state with what diseases it may be confounded in its earlier stages. What is the treatment to be adopted?

4. Describe the symptoms and treatment of acute rheumatism.

5. A man complaining of chest symptoms, and particularly of oppressed breathing, is found on examination to have a double see-saw murmur very distinctly audible over the base of the heart, as well as along the sternum, and over the arteries at the root of the neck. The murmur is inaudible at the apex.

What are the possible or probable alternatives in diagnosis? What circumstances remain to be observed, in order to determine exactly the nature and seat of the disease?

Write a full description of what you might expect to find, upon any given view of the case, consistent with the facts above mentioned.

FOURTH EXAMINATION.

Surgery.

1. What is the pathology, and what are the principles of treatment, of senile gangrene?

2. What are the causes of chronic ulcer of the leg; and how may each variety be best treated?

3. What are the steps of the operation of amputation at the shoulder, and the precautions necessary to be observed?

Midwifery.

4. Describe the formation and aspect of the corpus luteum, and state the medico-legal conclusion to which its presence leads.

5. What are the signs of the child's having died in utero?

6. What precautions are to be observed in administering chloroform during labour?

7. A married woman about thirty years of age had for months complained of pain in the lower part of her back, dragging sensation in the groins, and some tenderness in the hypogastrium; symptoms coming on gradually after a miscarriage, and accompanied by excessive menstruation, (the discharge being in part clotted,) and in the intervals by a creamy whitish discharge, now and then tinged with blood. Defecation was difficult and accompanied by pain; and after walking, pain was felt in the left iliac fossa. What was the nature of this patient's malady, and the treatment which cured her?

OBITUARY.

MR. NEWENHAM.

Killed at Cawnpore, with his two children, Arthur Wellesley R. Newenham, Esq., aged 44, Surgeon H.E.I. Company's service, of the late 1st Bengal Native Infantry. His wife, Charlotte (youngest daughter of General Kennedy, C.B.), died at Cawnpore of fever, between the 27th of June (when the women and children were shot at in the boats) and the 15th of July, the day of general slaughter by Nena Sahib of the survivors. Dr. Newenham was a native of Ireland, an M.D. of Heidelberg University, where he studied the period required of matriculated students under Tiedemann, Chelius, Bischoff, Naegele, and other distinguished professors. Subsequently, in April (8th), 1842, he passed the examination of the London College of Surgeons, and soon afterwards sailed for India. He had only a few months previously to his sad end been promoted to his full Surgeoncy, when he was removed to Cawnpore. Dr. Newenham was thoroughly well informed in his profession, an exemplary character, and one in whom the Company has lost an active and estimable officer.

MEDICAL NEWS.

APOTHECARIES' HALL.—Names of gentlemen who passed their examination in the Science and Practice of Medicine, and received Certificates to Practise, on October 22:—

CARTER, ALFRED, St. Ann's Bay, Jamaica.
HOWARD, JOHN, Woodford.
SWEETING, THOMAS, Wakefield, Yorks.

UNIVERSITY OF ST. ANDREWS.—List of gentlemen on whom the Degree of Doctor of Medicine was conferred, 24th October, 1857:—

AFFLECK, ROBERT, M.R.C.S. Ed., Edinburgh.
ANDREWS, HENRY CHARLES, M.R.C.S, and L.A.C. London.
CAPRON, EDWARD, M.R.C.S. and L.A.C., Guildford, Surrey.
COLLES, JOHN ARMSTRONG P., M.R.C.S.I., Dublin.
DANIELL, CYRUS O., M.R C.S., Late Royal Artillery.
DAVIS, WILLIAM F., M.R.C.S. and L A.C., London.
DIXEY, AUGUSTUS E., M.R.C.S., Finchley, Middlesex.
DONNET, JAMES JOHN L., M.R.C.S., Ed., R.N.
ELIN, GEORGE, M.R.C.S. and L.A.C., Hertford.
GILLESPIE, JOHN WILLIAMS, M.R.C.S. Ed., Cork.
HOWARD, JOHN SIMPSON, Madras.

Hozier, William Henry, M.R.C.S.I., Greenville, United States.
Jones, William P., M.R.C.S., Wellington, Salop.
Miller, David, M.R.C.S. Ed., Glasgow.
Norton, Selby, L.A.C., West Malling, Kent.
Rengifo, Pio, M.R.C.S., New Granada.
Robertson, Douglas, M.C.L.A., M.R.C.S. Ed., Edinburgh.
Skinner, Thomas, M.R.C.S. Ed., Edinburgh.
Smith, Frederick Moore, M.R.C.S., Great Hadham, Herts.
Smith, William Abbotts, M.R.C.S. and L.A.C., Southam, Warwickshire.
Sumpter, Walter, L.A.C., Horncastle, Lincolnshire.
White, Charles William, Madras.

DEATHS.

Blair. — Oct. 19, at Brighton, R. Blair, A.B., M.B., T.C.D., M.R.C.S., Eng., 1812, M.D., formerly of Great Russell-street, Bloomsbury, aged 68

Langley. — On the 19th inst., at No. 1, Suffolk-place, Hackney-road, Henry Charles Langley, L.S.A., 1833, aged 48, deeply regretted by all who knew him.

Wilkinson.—Oct. 15, at Liverpool, Mr. M. Wilkinson, late of Leeds.

The South Wales Railway Accident.—Mr. Bernard, Surgeon of the Bristol Infirmary, writes as follows: "Three gentlemen—viz., C. T. Coathupe, M. Coates, and E. Coathupe. all senior pupils and dressers at the Bristol Royal Infirmary, were passengers in the train at the time of the collision, and for two hours rendered most valuable services to the wounded, using most skilfully the means at their command, by making rough splints for the fractured limbs, applying dressings, and in all cases adopting those surgical means necessary for the immediate relief of the sufferers; all which from their intimate acquaintance with severe accidents they were so well able to do. Having made minute inquiries into the nature of the accidents, I find that among the wounded there were five persons with severe compound fractured legs, one complicated with copious hæmorrhage on the slightest motion; and I have no hesitation in saying that if it had not been for the timely and judicious treatment of these gentlemen most or all of these cases would have proved fatal." We shall be glad to hear that the directors of the Company prove their gratitude for the exertions of these gentlemen.

Health of Prisoners.—We have been favoured by Dr. Wilkinson, Resident-Surgeon of the House of Correction, Wandsworth Common, with a copy of the Annual Report of the health of the prisoners; from which it appears that the number of prisoners who have been in custody during the period of this report has been—males, 4381, females, 1846, total 6227; of which number, 438 males and 222 females were in ill-health, and required medical treatment upon their reception. The most prevalent disorders have been—diarrhœa 649, venereal 207, itch and scald heads 168. The diseases of a more serious character which have occurred, and which in 6 cases have had a fatal termination, have been the following: confirmed consumption 14, of which 5 died; diseased heart, 2; epilepsy, 5; apoplexy, 1, (died): hæmorrhage from the lungs, 3; insanity, 5; rheumatic fever, 2; and erysipelas of head, 2. There have been 1292 males and 568 females, total 1860, placed upon the sick list; of which number, 219 males and 68 females were removed to the infirmary. The per-centage of sick upon prisoners in custody being 30, and the per-centage of infirmary cases upon sick 15½. Dr. Wilkinson remarks, "Strict attention to the cleanliness and good order of the prison, as well as to the personal cleanliness of the prisoners themselves, continues to be maintained throughout, in a most praiseworthy manner; which, combined with repeated flushings of the drains, and attention to the proper cooking of the provisions supplied to the prisoners, consisted the principal safeguards for averting both epidemic and endemic diseases of a serious character, a nucleus for which is amply afforded in the half-starved, wretchedly clad, and filthy, poor creatures, almost daily received into custody."

Moorfields Ophthalmic Hospital.—During the past sixteen years no fewer than 5,000 cases of cataract have been treated at this Hospital.

Sickness in India.—Colonel Neill in a letter from Allahabad says, "Several of the men came into hospital with cholera in its worst form. Eight men were buried last evening and twenty this evening; there are still many cases in hospital, but of a milder nature. I have established a European hospital in a Masonic building a short distance from the fort, to which I have removed all cholera patients. I have also occupied the dawk bungalow near it with a subaltern's party for its protection; 100 Europeans are in tents on the glacis, and I move out 200 to-morrow to a tope of tree near the dawk bungalow. No rain has yet fallen, the heat is intense, and the soldiers, after their hard work and exposure, are much prostrated. The barracks here are in bad order, followers of any description being also unprocurable. There are but few punkahs and no tatties; the men have therefore not the proper advantages of barrack accommodation for this hot season. I regret to add that the supply of medicines here has failed; there appears to have been little or none kept in Allahabad, and our detachments only brought up sufficient for the march. I am now in expectation of the arrival of the Mirzapore, which was also detained by the same authorities, which I hope has some little medicine on board."

Yellow Fever in Lisbon.—The *Times* Correspondent, writing October 11, says, "Little or no amelioration can yet be noted in the course of the fever. Business continues almost paralysed, and the transactions in the shops as well as in the counting-houses of the merchants are almost a nullity. The lower part of the town, which is decidedly the business quarter, is almost deserted, and very many of the shops are closed. Every second person you meet converses about death, cases, symptoms, or remedies. If this state of things continue, there may be a probability of a crisis in the commercial community. The Exchange and the Custom-house are nearly deserted, and the traffic with the provinces has almost ceased, people being afraid to come to town. Among other things, I hear on good authority that the guards round the Custom-house are doubled, and the lower quarter of the city is strongly guarded—there being some fear that the mob, who look upon it as the focus of infection, may attempt to burn it down. Besides this, I am told the public are highly dissatisfied with the want of energy displayed by the government in meeting this emergency; and the authorities fear an outbreak. In the deserted streets I believe many robberies have taken place, the thieves not scrupling to enter houses where the fever has raged. A strong belief exists that this fever was imported in the Tamar, which arrived here from Brazils on the 2nd ult., after an unprecedentedly short passage. Certain it is, some very dirty baggage brought by her was opened at the Custom-house, and all the *employés* who were present have since died of the fever. I can vouch for this. Moreover, the Tamar had the fever on board, for two of her passengers died. In consequence of the prevalence of fever in Lisbon, free pratique is given to vessels from ports in Brazils declared suspected; from those called infected a new regulation is adopted—the passengers may at once land, but the baggage and goods must go to the lazaretto, and the ships, on being washed with some disinfecting liquid, may go to the Quadro. The ports of Sweden and Hamburg are declared infected with cholera." Another correspondent of the 19th instant writes:—"I regret that I am not yet able to notice a change for the better in the course of the deadly epidemic, which continues to ravage this capital. The disease now appears to be spreading. The average mortality is about 60 daily, and the upper and middle classes of society have hitherto suffered most. The faculty still continue divided in their opinions about the nature of the fever; and are by no means unanimous in classing it as yellow fever. There can, however, be no doubt that many cases of yellow fever have occurred, but the balance of probabilities seems to turn to the side of those who maintain that the disease is a species of typhus, highly contagious, and very fatal in its effects. I hear of some cases of husbands abandoning their wives and children who are attacked by the fever, and flying away into the open country. But in opposition to this we may set the conduct of many members of the Medical Profession, who manfully maintain their posts, although many of their number have succumbed to the destroyer."

VITAL STATISTICS OF LONDON.

Week ending Saturday, October 24, 1857.

BIRTHS.

Births of Boys, 814; Girls, 768; Total, 1582.

Average of 10 corresponding weeks, 1847-56, 1475·1.

DEATHS.

	Males.	Females.	Total.
Deaths during the week	476	512	988
Average of the ten years 1847-56	..	..	1002
Average corrected to increased population	...	..	1102
Corrected average for corresponding week in ten years 1847-56	507·1	494·4	1001·5
Deaths of people above 90	0	2	2
Deaths in 13 General Hospitals	26	21	47

DEATHS IN SUB-DISTRICTS FROM EPIDEMICS.

	Population. 1851.	Measles.	Scarlatina	Hooping-Cough.	Diarrhœa.	Cholera.	Typhus.
West	376,427	3	10	2	4	1	6
North....	490,396	4	13	8	12	..	7
Central ..	393,256	7	7	3	6	..	8
East	485,522	2	13	7	11	3	17
South	616,635	5	9	7	9	2	16
Total..	2,362,236	21	52	27	42	6	54

DEATHS REGISTERED DURING THE WEEK.

Causes of Death.	In the Week ending Saturday, Oct. 24, 1857. Deaths of Persons. AT ALL AGES.	Under 20 Years of Age.	At 20 and under 40 Years of Age.	At 40 and under 60 Years of Age.	At 60 and under 80 Years of Age.	At 80 Years of Age and Upwards.	Averages of Temperature and Deaths in 10 Weeks.
Mean Temperature	Mean temp. 51°5						50°1
All Causes	988	507	147	176	132	26	1001·5
Specified Causes	985	507	146	174	132	26	995·6
Diseases:—							
1. Zymotic Class	229	180	25	16	8	..	278·1
2. Dropsy, Cancer, and others of uncertain seat	58	9	7	25	15	2	41·2
3. Tubercular Class	158	48	65	37	8	..	164 2
4. Of Brain, Nerves, etc. ..	110	51	10	24	23	2	109·1
5. Of Heart, etc.	33	4	8	12	9	..	38·9
6. Of Respiratory Organs ..	173	118	7	22	23	3	144·5
7. Of Digestive Organs ..	66	18	11	22	12	3	57·5
8. Of Kidneys, etc.	12	..	2	4	3	3	14·1
9. Of Uterus; viz. — Puerperal Disease, etc. ..	9	..	5	4	..	..	9·0
10. Of Joints, Bones; viz.— Rheumatism, etc. ..	7	1	3	1	2	..	6·9
11. Of Skin, etc.	..	..	..	..	..	..	2·8
12. Malformations	1	1	..	..	..	..	2·6
13. Debility from Premature Birth, etc.	31	30	..	..	1	..	24·3
14. Atrophy	31	28	..	1	2	..	27·9
15. Age	24	..	..	..	21	13	37·0
16. Sudden	7	4	..	1	2	..	8·3
17. Violence, Privation, etc...	26	15	3	5	3	..	29.2
Causes not specified.. ..	3	..	1	2	..	..	5·9

METEOROLOGY.

From Observations at the Greenwich Observatory.

Mean height of barometer	29·638 in.
Mean temperature	51·5
Highest point of thermometer	64·8
Lowest point of thermometer	42·7
Mean dew-point temperature	50·3
General direction of wind	
Whole amount of rain in the week	2·85
Amount of horizontal movement of air in the week ...	510 miles

TO CORRESPONDENTS.

An Old Subscriber.—Permission must be obtained of Government, both in France and Switzerland, to enable an English Physician to practise in those countries; but there is little difficulty in obtaining the permission.

T.E., M.R.C.S.—The process shall be given next week.

Alexis St. Martin.

A notice that Alexis St. Martin (Dr. Beaumont's case of an American with a fistulous opening into the stomach), was about to visit this country, and of some fresh experiments undertaken upon him, appeared in some of the Medical Journals within the last twelve months. L.R.C.P. would be obliged by a reference to this notice.

Madeira.

TO THE EDITOR OF THE MEDICAL TIMES AND GAZETTE.

Sir,—I think it a duty to inform invalids that those going to this island by any vessel that touches at Lisbon will have to perform quarantine at Funchal. Steamers going direct to Madeira from England are of course free.

I am, &c.

Lisbon, October 14, 1857. An Invalid.

Dr. Baines.—Card received. Many thanks.

A Subscriber.—Wilson's work and plates. We regret very much the delay that has taken place in the appearance of Dr. Jenner's Lectures, but it has been owing entirely to the numerous engagements of the lecturer, who has promised, however, to furnish the next Lecture very soon.

Mr. Jones.—The paper will be very acceptable.

Jenner's Statue.

A correspondent suggests a different site for Jenner's statue to that fixed upon by the Committee. He says—"I was surprised by reading, in a recent number of the 'Athenæum,' that a statue was about to be erected to Jenner in Trafalgar-square. I trust this site is not irrevocably fixed upon. George the Fourth, Sir Charles Napier, and Dr. Jenner, would form a group only to be paralleled by that which once adorned the Groves of Blarney. If not too late, I would suggest Lincoln's Inn-fields as an admirable position for the monument. Placed just within the garden railings, on the south side of the square, it would be well relieved against the sky; and surely the statue of a distinguished Surgeon could nowhere be more suitably placed than at the gate of his college."

COMMUNICATIONS have been received from—

Dr. A. Taylor; Dr. Hall Davis; Dr. Macleod; Mr. Brodhurst; Dr. Day, St. Andrew's; Dr. Durgan; Dr. Lindsay; Dr. G. Scrive; Mr. Jones, Leamington; Dr. Baines; Mr. Milner; Mr. Lipscombe; An Invalid; A Subscriber; Dr. Wilkinson; Dr. Davidson; Dr. Cooke; Mr. Masson; Mr. Green; The Registrar-General, Edinburgh; Mr. Pope; Mr. F. Hinde; Dr. J. E. Scott; Mr. Carlisle; Mr. E. Bishop; Mr. D. Kennard; Mr. Martyn; Mr. Preston; Mr. Dobson; Mr. W. T. Bell; Mr. Sainger; M.W.B.; Dr. Muspratt; An Old Subscriber; L.R.C.P.; Mr. Sanson; Dr. McWilliam; Mr. Barlow; Mr. Hughes; Mr. Bacot.

APPOINTMENTS FOR THE WEEK.

31. *Saturday (this day).*

Operations at St. Bartholomew's, 1½ p.m.; St. Thomas's, 1 p.m. King's, 2 p.m.; Charing Cross, 1 p.m.

Medical Society of London, 8 p.m.: Dr. Edward Smith: "On the Action of Cod Liver Oil in Chest Diseases, and the Duty of Hospital, Dispensary, and Parish Medical Officers in Relation to its Administration."

2. *Monday.*

Operations at the Royal Free Hospital, 1 p.m.; Metropolitan Free Hospital, 2 p.m.; Orthopædic Hospital, 3 p.m.

Royal Institution, 2 p.m. *General Monthly Meeting.*

3. *Tuesday.*

Operations at Guy's, 1 p.m.; Westminster, 2 p.m.

4. *Wednesday.*

Operations at University College Hospital, 2 p.m.; St. Mary's, 1 p.m. Orthopædic Hospital, 3 p.m.

Hunterian Society, 8 p.m.: Dr. Habershon, "On the Treatment of Pneumonia."

5. *Thursday.*

Operations at St. George's, 1 p.m.; Middlesex, 12½ p.m.; Central London Ophthalmic, 1 p.m.; London, 1½ p.m.

University College Medical Society, 8 p.m.: *General Meeting.*

King's College Medical Society, London, 8 p.m: *Clinical Meeting.*

6. *Friday.*

Operations at the Moorfields Ophthalmic, 10 a.m.; Westminster Ophthalmic, 1½ p.m.; Great Northern. 2½ p.m.

Medical Society of London, 8 p.m.: *Council Meeting.*

Western Medical and Surgical Society, 8 p.m. Dr. Pettigrew will read a paper "On Tumours."

EXPECTED OPERATIONS.

King's College Hospital.—The following operations will be performed at this Hospital to-day, Saturday.

Excision of knee; removal of dead bone from femur. By Mr. Fergusson

Imperial Life Insurance Company,

1, OLD BROAD-STREET, LONDON.

INSTITUTED 1820.

T. George Barclay, Esq., Chairman.

Martin T. Smith, Esq., M.P., Deputy Chairman.

One-Third of the Premium on Insurances of £500 and upwards, for the whole term of life, may remain as a debt upon the Policy, to be paid off at convenience; or the Directors will lend sums of £50 and upwards, on the security of Policies effected with this Company for the whole term of life, when they have acquired an adequate value.

Four-fifths, or 80 per cent. of the Profits are assigned to Policies every fifth year, and may be applied to increase the sum insured, to an immediate payment in cash, or to the reduction and ultimate extinction of future Premiums.

At the fifth appropriation of profits for the five years terminating January 31, 1856, a reversionary bonus was declared of £1 10s. per cent. on the sums insured, and subsisting additions for every premium paid during the five years. This bonus, on policies of the longest duration, exceeds £2 5s. per cent. per annum on the original sums insured, and increases a policy of £1000 to £1638.

Proposals for insurances may be made at the Chief Office, as above; at the Branch Office, 16, Pall Mall, London; or to any of the agents throughout the kingdom.

BONUS TABLE.

Showing the additions made to Policies of £1000 each.

Date of Insurance.	Amount of Additions to Feb. 1, 1851.	Addition made as on Feb. 1, 1856.	Sum payable after Death.
	£ s. d.	£ s. d.	£ s. d.
1820	523 16 0	114 5 0	1638 1 0
1825	382 14 0	103 14 0	1486 8 0
1830	241 12 0	93 2 0	1334 14 0
1835	185 3 0	88 17 0	1274 0 0
1840	128 15 0	84 13 0	1213 8 0
1845	65 15 0	79 18 0	1145 13 0
1850	10 0 0	75 15 0	1085 15 0
1855	—	15 0 0	1015 0 0

And for intermediate years in proportion.

The next appropriation will be made in 1861.

Insurances, without participation in Profits, may be effected at reduced rates.

SAMUEL INGALL, Actuary.

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ASSURANCE COMPANIES.

HEAD OFFICES—449, Strand, W C.

These two Companies are now acting in full concert with one another, and offer the following advantages:—An union of interests and double security; a numerous body of influential Agents; a large revenue obtained in a short period; a moderate expenditure equally divided between the two Institutions. Qualified Medical attendants recognised as examiners for the Companies.

Applications for proposal and other forms may be addressed to Medical gentlemen throughout the country, or to

FREDERICK BIGG,
Actuary and Secretary to the Joint Offices.

October, 1857.

Recent Improvement by Mr. Jeffreys

in the RESPIRATOR. J. E. PERCIVAL respectfully invites the attention of the Profession to an important improvement in the Oval Respirator, which, having a maximum warming power of no less than 40°, can be instantaneously reduced, even without being displaced, to any of five grades down to a minimum of about 15, and vice versa. So that, in an atmosphere varying between 30° and 55°, air may be respired of one steady temperature of about 70°, or lower if desired.

The Profession are doubtless aware that the name Respirator is being assumed for various defective imitations. The original and most effective instrument may be had of the principal Chemists and Surgical Instrument Makers in town and country. Wholesale Office, 25, Bucklersbury, City. J. E. Percival, Manager.

To the Profession. — The Victoria

BOARDING-HOUSE, NITON, ISLE OF WIGHT. offers great advantages to invalids and those requiring a mild winter residence, being completely sheltered from the east winds, commodious, beautifully situated near the shore, commanding an extensive sea view, and contains every domestic comfort of a gentleman's private house, combined with the conveniences and luxuries of a first-class hotel. Hot, cold, and shower baths, the two latter free of expense. Terms most moderate. A medical man of many years' experience resident in the place.

Liquor Pepsinæ.—A Convenient and

efficacious preparation by

SAVORY and MOORE, 143, New Bond-street.

The Medicated Cod Liver Oils,

comprising

OLEUM MORRHUÆ CUM QUINA.

OLEUM MORRHUÆ CUM FERRI IODIDO.

&c. &c. &c.

Prepared only by SAVORY and MOORE, 143, New Bond-street.

Society of Arts' Prize Achromatic

MICROSCOPE, at £3 3s.—C. BAKER, of 243 and 244, High Holborn, begs to inform the Profession that he is now enabled to offer the PATTERN MICROSCOPE, so much esteemed by the Society of Arts, finished in a superior manner, with three Powers and Apparatus, in Mahogany Case, for £3 3s. They are particularly useful for Students, as every Physiological examination can be made with the same result as is obtained with the more expensive kind. Catalogues by post, free.

Established 1765.

To Surgeons.—Mr. Lawley, of Lom-

BARD HOUSE, 78, Farringdon-street, City, has for Sale a first-class AMPUTATING CASE, by Weiss, Strand; also a capital CASE, by Simpson, Strand; both in first-rate order. All kinds of Surgical and Mathematical Instruments bought, sold, or exchanged. Money advanced in sums of ten guineas and upwards on every description of valuable property.

Ladd's Students' Microscopes.

Compound Achromatic Students' Microscopes from	£4 15 0
Do., do, with ¼- & 1-inch Object-glasses, in Mahogany Case	8 0 6
No. 2. Compound Achromatic Microscope, with 2 Eye-pieces and Forceps	9 10 0
Ditto, with ¼- and 1-inch Achromatic Object-glasses of large angular aperture, Polariscope, Condenser, Animalcule Cage, and Mahogany Cabinet	21 7 0
No. 1. Large size ditto, of very superior workmanship..	18 18 0
Do., do., with 3 Object-glasses, and apparatus very complete	42 0 0

Catalogues to be had upon application to W. LADD, 31, Chancery-lane.

Hypophosphites of Lime and Soda,

as used by Dr. FRANCIS CHURCHILL, of Paris, in the Treatment of Phthisis (vide Medical Times and Gazette, August 1st, 1857), may be obtained from the Manufacturers.

Perrins and Barnitt have likewise prepared a series of the Hypophosphites, including the Potassa, Ammonia, Baryta, Strontia, and Iron Salts, for those of the Profession who may wish to test their therapeutic value.

In order to Secure the use of Pure Hypophosphites they would suggest the necessity of observing the fac-simile of their signature over the stopper of each bottle; this is the more necessary, as samples that have been forwarded to them for examination proved very impure.

PERRINS and BARNITT, Operative Chemists, 22, Conduit-street, Loudon, W.

Great Advantage will

be found from the Diagonal Arrangement of

HUXLEY'S FULCRUM BELT,

securing, in cases of Pregnancy, the chief support at the lower part of the Abdomen. It is an extremely light and elegant Article, and weighing under four ounces, is well adapted for India and warm climates. It is the only efficacious Belt at a low price.

Free by Post for 11s. 2d. To Medical Men, 9s. 2d.

Measures required—circumference at *a*, *b*, and *c*; depth, from *a* to *c*.

Illustrated and Priced Catalogues on application to

EDWARD HUXLEY,
8, OLD CAVENDISH-STREET, W.

PURE SPIRITS FOR THE FACULTY.

S. V. R. 56 o.p., 17s. 6d. net Cash.

This quotation admits of neither credit nor discount, and 1s. per gallon must be added for packages, to be allowed on their return.

HENRY BRETT and CO., Old Furnival's Distillery, Holborn.

Great Reduction in the Prices of New

MEDICAL GLASS BOTTLES and PHIALS, at E. AND H. HARRIS'S, 2, UPPER COPENHAGEN-STREET, BARNSBURY-ROAD, ISLINGTON, LONDON.

6 & 8 oz., any shape, plain or graduated ..	8s. per gross.
3 & 4 oz., do. do. ..	7s. 6d. do.
½ oz. moulded phials	4s. 6d. do.
1 oz. do.	5s. 6d do.
1½ oz. do.	6s. do.
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and BOTTLE MERCHANTS, Dealers in Druggists' Sundries, &c., 37, Bartholomew-close, City. The cheapest house in London for every description of Medical Glass of the best quality.

Samples and Prices forwarded free on application.

ORIGINAL LECTURES.

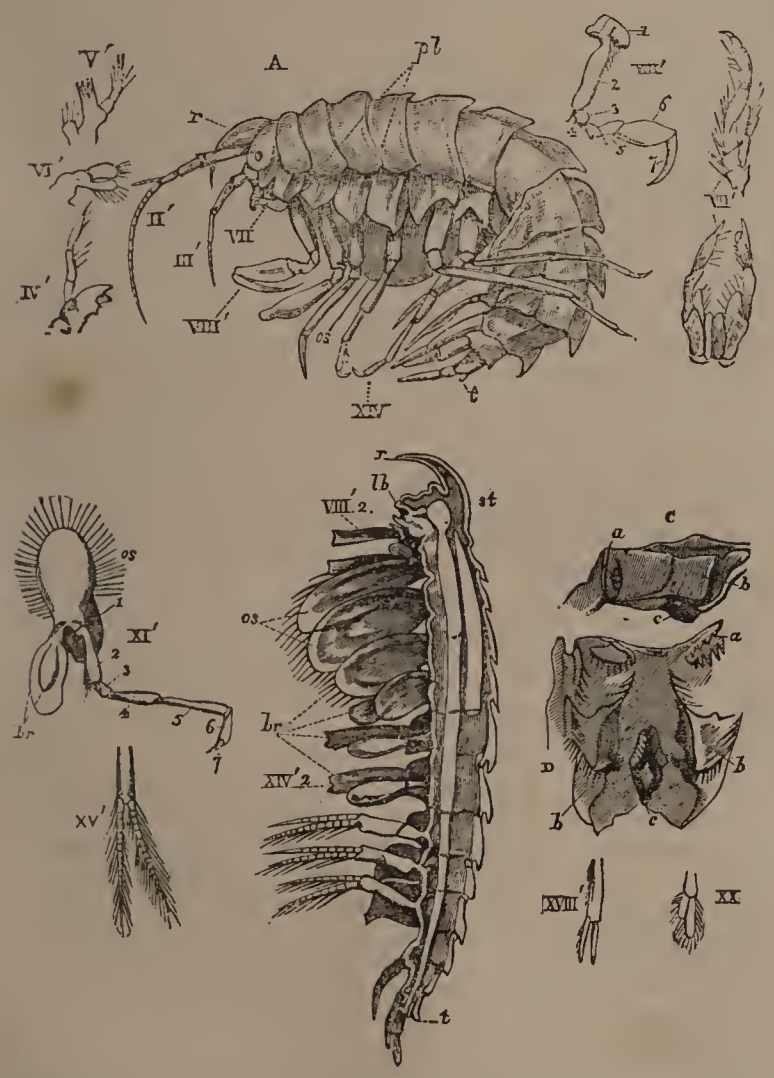
LECTURES
ON
GENERAL NATURAL HISTORY.

By THOMAS H. HUXLEY, F.R.S.
Lecturer on General Natural History at the Government School of Mines, and Fullerian Professor of Physiology, Royal Institution.

LECTURE XIII.

The *Edriophthalmia* resemble the *Podophthalmia* in never possessing a greater than the typical number (20) of somites, though in some members of the group the body is composed of fewer, in consequence of the abortive or rudimentary condition of the abdomen. The eyes are usually simple, and are always sessile. Ordinarily the last seven, and always the last six, thoracic somites are perfectly distinct from and freely moveable, upon one another. The ophthalmic and antennary somites have coalesced with the rest of the head; the branchiæ depend from the thoracic limbs, or are modifications of the abdominal appendages; and the heart is elongated, and many-chambered. But the salient character of the group will be best understood by the study of such a genus as *Amphithoë*, the principal details of whose organization are represented in fig. 1.

Fig. 1.



Amphithoë.—The letters and figures have the same signification as in other figures of Crustacea except *os*, oostegite. *Br.* branchiæ. A. Lateral view of stomach (B.) opened from above. *a*, *b*, *c*. Different parts of the armature.

The body of this animal is compressed, bent upon itself, and divided into fifteen very distinct segments, reckoning the head as the first.

The head presents a rounded tergal surface; the anterior face is disposed perpendicularly to the axis of the body, and is produced anteriorly into a strong, curved, and pointed rostrum; on each side it bears an aggregation of simple eyes, and in front, immediately beneath the rostrum, this face gives attachment to two long, many-jointed antennules. Below these, two antennæ, shorter, and fewer jointed than the antennules, are inserted, and the inferior part of the face is completed by a large movable labrum. Behind this come the strong, toothed palpigerous mandibles, (IV′) and two pairs of more or less foliaceous maxillæ. Inasmuch as the eyes are sessile, these five pairs of appendages are all that belong to the head proper; but just as in the *Podophthalmia*, certain of the anterior thoracic appendages are converted into accessory gnathites, so in *Amphithoë* the first pair of these members are applied against the mouth, and form a large lower lip (VII′).

The "head" of *Amphithoë*, therefore, is formed by the coalescence of the seven anterior somites of the body; but I believe that the tergum of the seventh (or first thoracic) somite is obsolete, as in a Stomapod, and hence that the tergal surface of the head of the *Edriophthalmia* corresponds exactly with the cephalostegite (or that part of the carapace which lies in front of the cervical suture), in *Podophthalmia*. Mr. Spence Bate has shown in his valuable Report on the *Edriophthalmia*, that in those *Crustacea* at present under discussion, a strong apodeme arises on each side from the posterior part of the sternal region of the head, and passing inwards and forwards meets with its fellow, to form an endophragmal arch, which supports the œsophagus and stomach, and protects the nervous commissure between the first and second sub-œsophageal ganglia, which runs under it. (a)

The discoverer of this structure conceives that it represents the terga of the three somites immediately succeeding the mouth; but I cannot see that it is other than the representative of the precisely similar mesophragm formed by the anterior apodemata in *Astacus*. In fact, the correspondence in structure between the head of an *Amphithoë* and the cephalic portion of the carapace of *Astacus* is not a little striking. There is the same sternal flexure, and the same relative position of the stomach, and of the insertions of the mandibular muscles. The great difference lies in the abortive condition of the ophthalmic appendages. (b)

The thorax is divided into seven somites, each of which gives attachment to a pair of limbs. It is characteristic of *Amphithoë* and its allies to have the five anterior pair of thoracic members directed forwards. Each limb consists of an expanded coxopodite, (well shown by Mr. Bate not to be an epimeral piece), succeeded by the other six joints of the typical crustacean limb.

In the male a single vesicular lamella, the branchia, is attached to the inner side of the coxopodite of the appendages of the ninth to the fourteenth somites inclusively; but in the female an additional plate, convex externally and concave internally, is attached above and internal to, the branchia of the 9th to the 12th. These "oostegites," as they may be called, inclose a cavity in which the incubation of the eggs takes place.

The abdomen consists of six somites and a very small terminal telson. The appendages of the three anterior somites are terminated by two multiarticulate setose filaments (XV′.) while in the three posterior, the corresponding parts are styliform, and serve as a fulcrum for the abdomen when the animal leaps, by its sudden extension.

The *Edriophthalmia* are ordinarily divided into three groups. The *Amphipoda*, which resemble *Amphithoë*, are characterized by their compressed form and their ordinarily saltatory habits; by having thoracic branchiæ; by the forward direction of their four anterior locomotive limbs, and by the contrast between the three anterior and the three posterior pairs of abdominal appendages. The common Sand-hopper is the most familiar example of this division. The second group is that of the *Læmodipoda*, distinguished by the rudimentary state of the abdomen, which is reduced to a mere papilla,

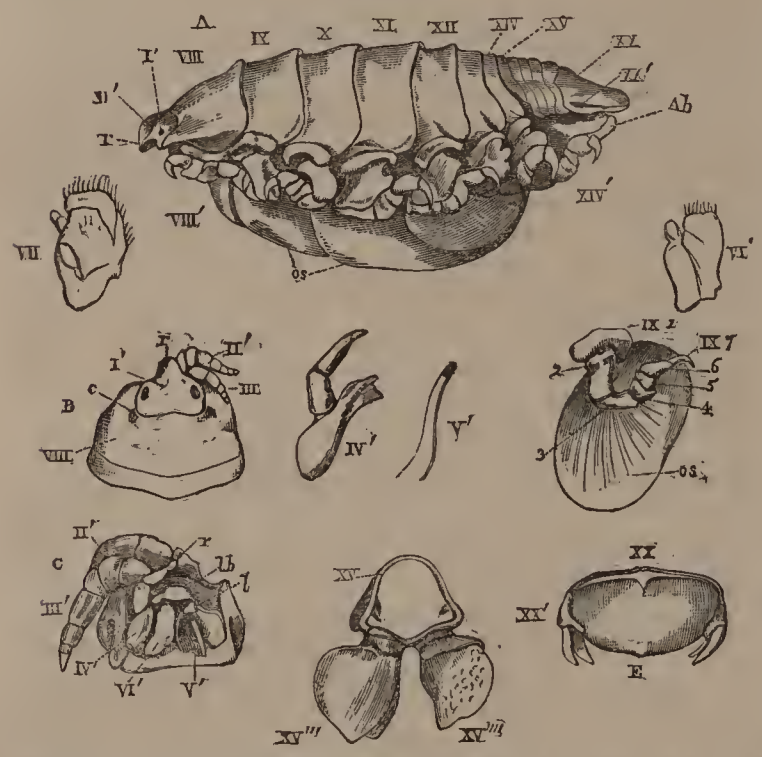
(a) The facts that have been stated clearly prove the identity of composition of the head throughout the Crustacean series. The six somites so clearly demonstrable in *Squilla*, are traceable with equal distinctness in *Astacus*, *Limulus*, and *Amphithoë*. In all three forms it is rather the form and proportions of the head which vary, than its essential composition or arrangement. But from the head of *Amphithoë* there is but a step to that of an insect, especially if we take into consideration *Phrosina* or *Hyperia* on the one hand, and the *Myriapoda* on the other; while on the other side there is an equally close relation in cephalic structure between *Limulus* and the *Arachnida*. In considering the air-breathing *Articulata*, in fact, I shall endeavour to show that their heads are constructed of the same essential elements, and on the same principle as those of the *Crustacea*.

(b) A strong endophragmal arch separates the sub-œsophageal ganglia and commissures from the gullet in Squilla, but has different connexions

and by the coalescence of the second as well as the first thoracic somite with the head, so that the anterior limbs appear to be as it were suspended under the neck. The strangely formed genera *Cyamus*, the parasite of whales, and *Caprella*, which is very common upon our own coast, adhering to corallines, sea-weeds and starfish, belong to this group.

The *Isopoda*, which constitutes the third group of the *Edriophthalmia*, are usually depressed instead of compressed, and run or crawl instead of leaping. Many, like the common wood-louse (*Oniscus*), possess the power of rolling themselves into a ball when alarmed; some, like the last-named genus, are terrestrial; others, like the *Asellus*, inhabit fresh waters, but the great majority are marine; and among them are many peculiarly modified parasitic forms (*Cymothoa* (fig. 2), *Bopyrus*.) The composition of the head and mouth in the *Isopoda* is essentially the same as in the *Amphipoda*, though differing considerably in details. The branchiæ of the thoracic members are absent, their functions being performed by the endopodites of some of the abdominal members, which are soft and vascular. The three anterior pairs of thoracic members are usually directed forwards—the four posterior pairs backwards.

Fig. 2.



Cymothoa.—The letters and figures have the same signification as in Fig. 1, except *Ab*, Abdominal appendages in Fig. A.

In all the *Edriophthalmia* the alimentary canal is straight and simple, and its anterior gastric dilatation, frequently strongly armed, is situated in the head. The liver is represented by a variable number of straight cœca.

The respiratory organs vary greatly in structure. In most *Edriophthalmia* they are simple plates or sacs, the delicacy of whose integument permits of the free exposure of the blood circulating in them to the air. In the amphipod genus *Phrosina*, however, I find that the branchiæ are composed of rudimentary lamellæ, attached to an expanded stem, and resemble not a little the epipoditic branchiæ of *Astacus*. In some *Sphæromidæ* Duvernoy and Lereboullet found the branchial endopodites transversely folded, so as to approach those of the *Xiphosura*.

The exopodites of the abdominal members of the *Isopoda* frequently cover the modified endopodites, so as to form opercula, and the first pair of abdominal limbs is in many genera altered in such a manner as to form one such large operculum for the four pair which succeed it. In the *Idoteidæ* it is, on the other hand, the sixth pair of abdominal limbs, which are so modified as to form the curious door-like opercula which cover the gills.

In certain of the terrestrial *Isopoda*, (*Porcellio*, *Armadillidium*,) some of the opercular plates of the branchiæ, usually the two anterior pair, contain curiously ramified cavities, opening externally, and containing air. The genus *Tylos* possesses respiratory organs, which present a still more interesting approximation to those of the purely air-breathing *Articulata*. They are thus described by Milne-Edwards:—

"The abdomen presents inferiorly a deep cavity very similar to that of the *Sphæromæ*, in which the five anterior pair of appendages are lodged; but this cavity, instead of being completely open below, is imperfectly closed in its posterior half by two series of lamellar prolongations, which arise from the sides of the interior face of the third, fourth, and fifth abdominal segments, and pass horizontally onwards; the first pair of these plates is small, those of the third pair are, on the other hand, very wide, and almost meet in the median line. The four anterior pair of abdominal appendages lodged in this cavity each carry a wide and short quadrilateral appendage, whose surface presents a transverse series of large longitudinal elevations, and each of these elevations presents inferiorly a linear aperture leading to a respiratory vesicle whose parietes are covered with a multitude of little arborescent cœca. These vesicles when extracted from the interior of the limb closely resemble a brush-like branchia, having its longitudinal canal in communication with the atmosphere by a longitudinal stigma. The fifth pair of abdominal members are rudimentary, while the sixth constitute the door-like triangular valves covering the anus, and all the interior face of the last abdominal segment." (c)

The nervous system in the *Amphipoda* consists, according to Mr. Bate, of supra-œsophageal or cerebral ganglia, united by commissures with an infra-œsophageal mass, whence commissural cords pass under the endophragm to the anterior of the thoracic ganglia, of which there are commonly seven pairs succeeded by five or six pairs of abdominal ganglia. In some *Isopoda* (*Cymothoa*, *Idotea*) the abdominal ganglia are also distinct; but in others, such as *Æga bicarinata* (according to Rathke), they are fused into a single mass placed in the anterior part of the abdomen, presenting only traces of a division into five portions. In the *Cymothoada* and terrestrial *Isopoda*, again, the abdominal ganglia appear to have completely coalesced with the last thoracic, whence the abdominal nerves radiate. Finally, in the short-bodied *Læmodipoda*, such as *Cyamus*, there are not more than eight pair of post-œsophageal ganglia, whose posterior commissures are so shortened that the nervous system ends in the antepenultimate somite.

Brandt describes splanchnic ganglia like the lateral pair of Insects in the *Oniscidæ*. It is one of the many respects in which the *Isopoda* simulate *Insecta*. I am not aware that the splanchnic nervous system of the *Amphipoda* or *Læmodipoda* has yet been described.

No other organs of sense than eyes have as yet been certainly demonstrated to exist in the *Edriophthalmia*. These organs vary in their structure, from the simple, more or less closely aggregated ocelli of *Læmodipoda*, and of many *Isopoda* and *Amphipoda*, to the strictly compound eyes, as complex as those of the highest *Articulata*, which exist in *Æga*, and as I have found, in *Phrosina*.

The female genitalia of the *Edriophthalmia* consist of two simple sacs, which usually open on the ventral surface of the antepenultimate thoracic somite. In the male, one or more cœcæ on each side constitute the testis, which ordinarily opens on the first abdominal somite, in connexion with one or two pairs of copulatory organs developed from the anterior abdominal somites.

The eggs of the ordinary *Edriophthalmia* usually undergo their development in the chamber beneath the thorax formed by the oostegites of the thoracic appendages. In most cases, the young differ so little from the adults that no metamorphosis can be said to take place. They frequently, however, want the last thoracic somite. The young of the parasitic *Edriophthalmia*, such as *Bopyrus*, *Phryxus*, *Cymothoa*, and *Cyamus*, on the other hand, are widely different from the adults, and not only in their metamorphosis, but in the small proportional size and less aberrant form of the male, *Bopyrus* and *Phryxus* recall the parasitic *Copepoda*.

The *Trilobita*.—Two groups of *Crustacea*, whose structure is so peculiar that we must consider them as modelled upon plans distinct from any of those yet described, the *Trilobita* and the *Eurypterida*, are unfortunately known only in the fossil state; indeed no remains of either have been found in strata newer than the Carboniferous. All our conclusions with regard to them are therefore necessarily based upon the structure of those parts of the skeleton which were solid enough to be preserved.

The dorsal aspect of a Trilobite resembles not a little that

(c) Histoire Naturelle des Crustacés, vol. iii., p. 187.

of one of the flatter Isopods; and the analogy is considerably increased by the habit which many Trilobites possessed of rolling themselves up, just as an *Oniscus* will do when disturbed or injured. The body may present a very variable number of segments; sometimes consisting of not more than four distinct segments, sometimes of very many. Three portions are always distinguishable, an anterior shield-like single piece, the *head* or *scutum capitale;* a number of segments which succeed this, and are moveable upon one another, constituting the *thorax;* and a terminal layer, or smaller scutiform segment, the *pygidium*.

Each thoracic segment is doubtless a single somite, and on the tergal surface it presents the same parts as any abdominal somite of a crab or lobster. Thus there is a middle region, the tergum (or "axis" of Barrande), marked off by a depression or groove on each side from the lateral regions, the pleura, ("pleure" of Barrande.) The anterior part of the tergum presents a smooth articular facet, which glides under the anterior margin of the preceding somite, when the body is extended, and may be termed the axial facet, ("genou" of Barrande.) A corresponding surface on each pleura is the "pleural facet;" it allows of the ready gliding of each pleuron beneath its predecessor when the body is coiled up.

Internal to the facet the pleuron presents an angulation or fold.

The pleuron is frequently peculiarly sculptured, and it is remarkable that while the ornamentation in some genera is always in relief, in others it is as invariably in intaglio, so that there are grooved pleura and ridged pleura.

So far as its tergal surface is concerned, the somite of the *Trilobita* departs in no important respect from that of an ordinary Crustacean; but of the sternal region we know nothing. The integument constituting the skeleton turns in at the edge of the pleuron, and has been traced only as far as its angulation on the under surface. At the posterior margin of the somite again it is reflected forwards and downwards to the anterior margin of the next: but no trace of the rest of the sternal skeleton has been found, nor has a vestige of any appendage ever been discovered. Such exceedingly delicate organisms are constantly preserved in the same matrix with Trilobites, that it is impossible to conceive this want of appendages and of sternal skeleton, to arise from any cause but their absence, or excessive delicacy; and hence the inevitable conclusion seems to be, that the thoracic somite of a Trilobite resembled very nearly one of the posterior abdominal somites of a Brachyuran in its structure. In the sixth abdominal somite of a common crab, for instance, we find the same well-developed tergum and pleura, the same reflexion of the hard integument inwards for a short distance beneath each pleura; and the same soft and membranous character of the rest of the sternal skeleton; and if this somite were fossilized we should, undoubtedly, as little discover any trace of the sternal skeleton in it as in the Trilobites.

The pygidium is plainly composed of a greater or smaller number of somites of a similar character to those of the thorax, which have coalesced as the abdominal somites of *Ebalia* or *Limulus*, for instance, coalesce.

The head presents a central portion, the glabellum, continuing the direction of the terga of the thoracic somites, and a lateral expanded "limb," the homologue of their pleura.

A transverse groove marks off a narrow posterior "occipital segment" from the rest of the head, and the glabellum is commonly lobulated at the sides. It is not improbable that these markings may correspond with some, at any rate, of the primary somites which enter into the composition of the head. Barrande states that in *Phacops* he has found the alæ of the labrum ("hypostoma" and "epistoma," Barrande) fitted on to the internal impression of the anterior sutures of the glabellum; but the practical difficulties which must necessarily oppose the accurate determination of such a point as this in a fossil, lead me to hesitate in adopting, even on the authority of so accurate an observer as M. Barrande, a statement so opposed to all analogy. In all known Crustacea the labrum is attached to the sternal, not to the tergal region.

The latero-posterior portions of the limb of the head are called the "genæ," and the point into which they are produced posteriorly is termed the genal angle. The edges of the limb, thickened as in *Limulus*, are termed the "marginal band." Beneath this the integument is reflected, as in the thoracic pleura, to form the "sub-frontal fold," which can be traced for a short distance only, so that the sternal skeleton of the head is like that of the rest of the body, almost entirely wanting. In the middle line, however, a large moveable plate, corresponding in all essential respects with the labrum of *Apus* and *Limulus*, (the *hypostoma* of Barrande,) projects backwards over what was doubtless the position of the mouth (d)

The eyes are situated upon the genæ, one on each side of the glabellum in those Trilobites which possess them; but, as Barrande has shown, many of the genera found in his primordial zone (which appears to correspond with the Lingula flags in this country), are eyeless. *Trinucleus Bucklandi*, according to the same authority, has eyes in youth, but not in the adult condition.

Barrande states that three types of structure are discoverable in the organization of the eyes of these ancient *Crustacea*.

In the first, exhibited by *Phacops* and *Dalmannia*, the integument of the eye is identical with that of the rest of the head, but is pierced by apertures, each of which is covered by a projecting cornea. In the second, to be seen in *Asaphus* and *Acidaspis*, all the lenses are covered by a common cornea of a different texture from the rest of the cephalic integument. The third modification is presented by *Harpes*, which possess only a few isolated stemmata on each side of the head.

Fig. 3.

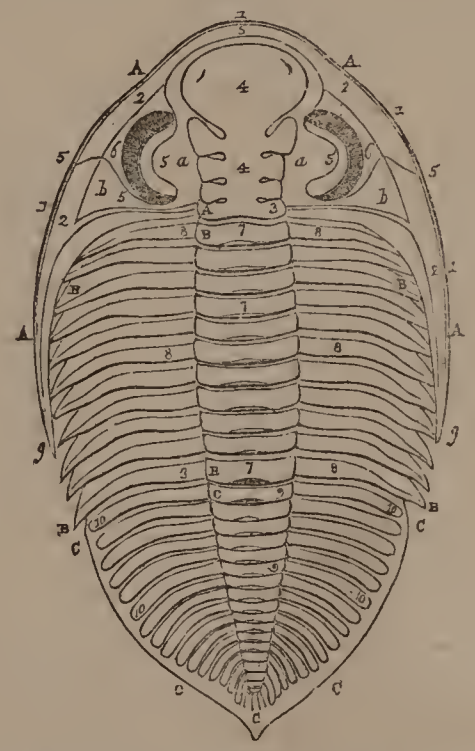


Diagram of *Dalmanites*, after Pictet.—A. Head. 1. "Marginal band. 2. "Marginal groove," internal to the band. 3. Occipital segment. 4. Glabellum. 5. Great suture. 6. Eyes. *a*. Fixed gena. *b*. Moveable gena. 9. Genal point. B. Thorax. 7. Terga. 8. Pleura. C Pygidium. 9. Tergal, 10. Pleural portions.

The most remarkable feature about the Trilobitic head, however, is the existence of a suture, which commences on each side, either on the occipital or on the lateral edge of the limb, passes forwards and inwards between the eye and the glabella, and then runs forwards, and either enters the "labral" suture (hypostomal suture, Barrande), which separates the labrum from the sub-frontal fold, or unites with its fellow in the middle line. Such union may take place either on the tergal surface of the head or on the margin of the limb, or on the sub-frontal fold. The primary halves of the suture being called the "great suture;" the connecting branch is termed "facial," "marginal," and "rostral," in these three cases respectively; but it will be understood that in all it is nothing more than the median part of the great suture. It is connected with the labral suture by either a single median "azygos" suture, or a pair of "geminal" sutures.

(d) M. Barrande describes a plate lying on the labrum, and corresponding with it in form and size. The existence of this part as a distinct plate, however, seems to require further proof; and at any rate the term *epistoma* proposed by M. Barraude for it is quite inadmissible, being already used for a totally distinct organ, viz., the antennary sternum. If any structure represents the epistoma in the Trilobite it is the sub-frontal fold.

Besides these sutures, one involving the eye on its outer side is the "subocular" suture of Barrande; and a suture supposed to separate the perforated limb of Harpes from the rest of the head, is termed the "anomalous" suture.

The great suture necessarily separates the limb into a median portion fixed to the glabella, and a lateral part which may be detached from the other along the line of the suture. These are what Barrande terms the moveable and the fixed gena, ("joue mobile," and "joue fixe.")

The interpretation of the nature and import of these sutures is a matter of no small difficulty. Barraude conceives they may be for the purpose of assisting the ecdysis; but we find nothing of the kind in other *Crustacea*, in which moulting is, from the form of their bodies, at least as difficult an operation; and from the soft condition of the sternal walls moulting should, one would think, have taken place with peculiar ease in this group. I am inclined to think that the great suture is comparable to the epicranial suture of *Insecta* in so far as it seems to indicate the termination of the upwardly reflected cephalic sterna. For we have every reason to believe that here, as in other *Crustacea*, the part which bears the eyes is a sternum. On the other hand, there can be little doubt that the glabella represents a series of coalesced terga; consequently the great suture is the boundary between the tergal and the sternal regions. The moveable "gena" would thus correspond with the procephalic lobes in the head of an embryonic *Crustacean*.

The number of distinguishable somites in the *Trilobita* varies very much; *Agnostus* presents the minimum number of thoracic somites — two; *Harpes ungula* the maximum — twenty-six.

The minimum number of the pygidial somites is according to Barrande, to be found in *Sao hirsuta*, which has two; the maximum number, twenty-eight, in *Amphion multisegmentatum*. It is interesting to find the greatest number of cephalic segments estimated at six (*Paradoxides spinosus*).

As all that we certainly know about the trilobites, concerns their tegumentary skeleton, Barrande's remarkable discovery of the metamorphoses which many genera undergo may as well be adverted to in this place. In *Sao*, for instance, the body is round, in the smallest and youngest form observed, and neither thorax nor pygidium is distinguishable. The somites behind the head gradually make their appearance at the hinder part of the disk, and the pygidium is only developed at a comparatively late period. In *Trinucleus* and *Agnostus*, on the other hand, the earliest forms observed present the character of the genus, but the thoracic somites are at first indistinct, and new segments are added in succession to the pygidium. In *Illænus*, *Conocephalites*, &c., the thorax and pygidium are distinct in the earliest forms observed, but undergo an addition of new somites, while in others it is the pygidium only which is deficient in the earliest forms.

Valuable and interesting as are these results of M. Barraude's acute and laborious investigations, we must not deduce from them conclusions which they may not warrant; it must not be forgotten that these may not be all the changes through which the trilobites passed, and that the earliest form observed by Barraude may stand in the relation of a *Megalopa* to a *Brachyuran*, and may have been preceded by the equivalent of a *Zoœa*.

It is by no means easy with the facts before us to determine the precise systematic place of the *Trilobita*, but it is sufficiently clear that it will lie somewhere between the *Isopoda*, the *Xiphosura*, the *Branchiopoda*, and the *Copepoda*. Among the *Isopoda*, the trilobed form, the membranous condition of the sternal skeleton, the habit of rolling up, the addition of thoracic somites after birth, the soldering together of the abdominal somites (*Idotea*) can all be paralleled. And in the parasitic *Isopoda*, the appendages even become in some cases rudimentary. The eyes of the trilobite are essentially Edriophthalmian, and were it not for the total absence of limbs, and the multiplication of somites beyond twenty, it would be difficult to assign any valid ground of separation from this group.

The Trilobites can be regarded neither as embryonic nor as larval forms of *Crustacea*. The early development of the sternal region and of the appendages is characteristic of the Crustacean embryo, but it is precisely these parts which appear to have been quite rudimentary in the Trilobites; nor is there any larval form with which the Trilobites can be for a moment compared. It is in truth a very aberrant group of *Crustacea*.

With the *Xiphosura*, the *Trilobita* present many analogies, some of which necessarily result from the affinities of this group with the *Isopoda*, while others arise out of the special peculiarities of the *Xiphosura*. Thus the cephalothorax of *Limulus* is eminently comparable to the head of a Trilobite; the sub-frontal fold corresponds with the epistomial area of the king crab; the labrum with its labrum. The metamorphosis of the Trilobite, so far as known, curiously resembles that of the *Limulus*. The great limbs of the *Xiphosura*, and their want of separately moveable abdominal somites are, it is true, marked distinctive characters; but the discrepancies are lessened by some of the ancient *Xiphosura*, which appear to have possessed moveable body-segments. *Apus* is the sole connecting link between the *Trilobita* and the *Branchiopoda*, and the affinities in this direction appear to me, notwithstanding the stress that has been laid upon them, to be far weaker than in the other two. The most important point is the multiplication of the somites in *Apus*, as in some of the *Trilobites*, beyond the typical number. The similarity of the cephalic regions is not greater than between the *Xiphosura* and *Trilobita;* and as to the character of the appendages, it seems to me that had the Trilobites produced locomotive organs of anything like the same proportional strength as those of the *Apus*, some trace of them must have remained. The absence of caudal appendages, and the coalescence of the posterior somites into a pygidium, are characters widely separating the Trilobites from the Branchiopods.

Among the *Copepoda* we find a carapace essentially resembling the head of a Trilobite; and a body divided into a less than the typical number of somites. The head and body of some genera of *Copepoda*, such as *Sapphirina*, are very trilobitic; and in this genus, as in the parasitic Copepods, the appendages are very delicate and small, or may even become almost entirely obsolete. But there is nothing to be compared to a pygidium.

The cephalic sutures are, so far as I am aware, peculiar to Trilobites among adult *Crustacea*.

The Eurypterida.—This group includes the Devonian and Silurian genera, *Eurypterus* and *Pterygotus*, which, though as little embryonic in their characters as the *Trilobita*, are, in many respects, curiously larval. These singular Crustaceans attained a very great size, species of *Pterygotus* of several feet in length being known. The body, in those forms which have been most carefully examined, consists of a comparatively small carapace, rounded anteriorly, and carrying on its upper surface a pair of elevations, which are distant in *Pterygotus* and approximate in *Eurypterus*, and were in all probability the eyes.

Ten to twelve distinct segments succeed the carapace, becoming narrower posteriorly; the last, varying in shape from lanceolate to oval, and deeply emarginate, probably represented a telson.

Three pair of appendages were attached to the carapace in *Pterygotus;* anterior, pincer-like antennæ; median, toothed mandibles, provided with a large palp; and a pair of posterior long gnathites, with a large toothed coxopodite, succeeded by a number of joints, the last of which has the form of an oval palette. These last members probably performed the function of locomotive or swimming feet. A considerable epistomial region lies in front of the mouth, as in *Limulus*, and a large oval plate, emarginate anteriorly, covered the mouth in the median line.

No limbs have been found in connexion with the abdominal somites, nor have any detached parts different from those just described been as yet discovered.

Many parts of the surface of the body and of the appendages exhibit an exceedingly peculiar sculpture, resembling the conventional representation of feathers, or the mode in which they are represented in the Assyrian and Egyptian sculptures; and it was from this cause apparently that the Scotch quarrymen conferred the title of "seraphim" upon the *Pterygotus*.

The *Diastylidæ* are the only *Crustacea* with which I am acquainted which exhibit anything similar to this ornamentation; and in the number of free somites, and the more or less rudimentary condition of the abdominal appendages, this aberrant group of *Podophthalmia* presents other analogies with the *Eurypterida*. The carapace, the prehensile antennæ, the largely developed posterior gnathites of *Pterygotus* are to be paralleled among the *Copepoda* and *Xiphosura*, from which,

however, and indeed from all other adult *Crustacea* with which I am acquainted, the *Eurypterida* differ widely in certain other respects.

The absence of developed posterior thoracic and abdominal members in a Crustacean possessing the corresponding somites, is to be met with, in fact, only among the Zoæiform larvæ of the *Maerura* and *Brachyura*, in which, as we have seen, the proportions of the body are not dissimilar to those of the *Eurypterida ;* where the abdominal appendages are entirely absent, and the well-developed and conspicuous thoracic and cephalic members are not more than two or three pair in number, and consist of antennæ and maxillipedes, the latter serving as locomotive organs.

I conceive, therefore, that the *Eurypterida* must form a group by themselves, which are best understood by combining together organic peculiarities at present found only in the *Copepoda*, the *Xiphosura*, the *Diastylidæ*, and the larvæ of *Podophthalmia*.

Erratum in last Lecture: For the number XV′. in Fig. 4, substitute IX′.

ORIGINAL COMMUNICATIONS.

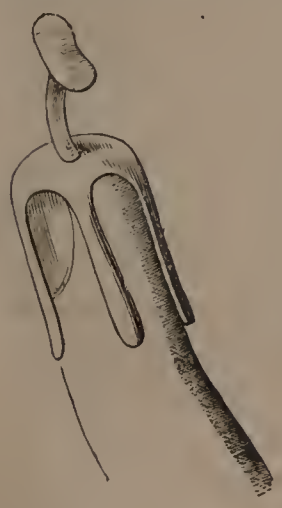
THE CATARACTOUS EYE COMPRESSOR:

A NEW INSTRUMENT FOR FACILITATING THE EXTRACTION OF CATARACT.

By JAS. VOSE SOLOMON, F.R.C.S.
Surgeon to the Birmingham and Midland Counties Eye Infirmary.

In the removal of hard cataract from the axis of vision by extraction, after the section of the upper half of the cornea has been completed (in the right eye), and the capsule of the lens has been sufficiently opened, the operator, in order to dislocate the cataract through the pupil, raises the upper lid with the forefinger of the left-hand, and with the "curette" in his right, makes pressure with the spoon end of that instrument upon the globe, at a point about midway between the lower margin of the cornea and the insertion of the inferior rectus muscle.

It will, however, sometimes happen, notwithstanding the corneal and capsular incisions have been properly executed, that the cataract does not come forward, but slips behind the iris, or perhaps sinks more or less deeply into the vitreous humour. Under these circumstances it is usual, and a very good practice, to get an assistant to harpoon the lens with a small and sharp hook, and then gently withdraw the cataract through the pupil and the corneal incision, care being taken not to evert the flap to such an extent as shall favour an escape of the vitreous. This manipulation to be safely performed requires that it shall be executed by the steady and delicate hand of one who has been practically instructed in the operation under consideration. But such a one is not always at hand. I have therefore been led to devise and make use of the instrument here delineated. It consists of a cup of thin metal, with four elastic ribs attached to it, which fits on the end of the second finger; to the centre of the cup is rivetted a curved stem, something less than half an inch in length; this stem terminates in a transverse bar, which is concaved, and set on at such an angle as will render it easy of adaptation to the globe of the eye.



Either silver or steel may be used for the cup and ribs. Each rib should be hollowed, so as to give it strength and elasticity. (a)

It will be obvious to those accustomed to operate for cataract, that the upper lid can be elevated and fixed with the index finger, and pressure made upon the eye-ball by the second finger of the same hand, arched in front of the eye, and having attached to it "the compressor." From the trials I have made with it, I believe that in the operation of extraction the surgeon will gain by its use an equivalent to a third hand. It is less painful to the patient than Daviel's spoon. The exact amount of pressure exerted is accurately appreciated through the tactile sensibility of the end of the finger. Moreover, by placing the stem of the hook held in the right hand just behind the upper part of the incision, a useful degree of counter-pressure can be made; and should the cataract not then come forward, or should any untoward accident threaten, the hook can be used to seize the cataract at the precise moment, and in the exact mode that the operator may deem advisable. In fact, one mind will direct the whole of those manipulations, which demand skill and knowledge for their perfect execution.

P.S.—I have had made several instruments, which were modifications in detail, but not in the principle of the one delineated on this page, but prefer the elastic ribs to a flat ring of metal, and the curved stem to a straight one set on obliquely to the cup.

96, New Hall-street, Birmingham.

(a) Mr. Walter Mappin, of Bull-street, in this town, has manufactured the instrument for me.

ON THE MORTALITY OF THE METROPOLIS DURING THE PAST SPRING.

By J. J. FOX, Esq.

1. *Total Mortality of the Quarter.*

The deaths registered in London during the thirteen weeks ending June 27, were 13,252. Making the usual allowance for increase of population, this number is at the rate of 498 to every 100,000 of the population. But the average of the previous seventeen springs, from 1840 to 1856, is 559; so the present spring presents a mortality about 11 per cent. *below* the average of the season. The only year in which there was less mortality in spring is 1850, when it was 485; in every other year it has exceeded the spring of 1857. Moreover, it is worthy of remark, that these two springs, viz., those of 1850 and 1857, are the only instances during 17½ years in which the mortality *of any quarter* has been under 500 per 100,000, that is ½ per cent., or at the rate of 2 per cent. per annum.

2. *Distribution of the Mortality among various Diseases.*

We may arrange the chief diseases and classes of disease which, taken in the aggregate have just been shown to make up a salubrity of 11 per cent., in three heads; the number following each name representing not the mortality, but the relation that the mortality bears to the average of the same disease in former springs.

A.—Diseases presenting a mortality *above* the average of former springs:—

	Per cent.		Per cent.
Teething	17 above	Premature birth and debility....	7 above
Hooping Cough ..	12 ,,	Diseases of the heart	1½ ,,
Bronchitis	11½ ,,		
Measles	5½ ,,		

B,—Diseases of which the mortality is at or *below* the average of former springs, but not so much below as the total mortality:—

	Per cent.		Per cent
Diseases of the Kidneys	0	Phthisis	7½ below
Diarrhœa.....	2½ below	Diseases of digestive organs	8½ ,,
Diseases of the respiratory organs	3 ,,	Diseases of uncertain seat	10 ,,
Apoplexy.....	5 ,,	Pneumonia	10 ,,

C.—Diseases *below* the average, and differing from it by a larger per centage than the total mortality:—

	Per cent.		Per cent.
Rheumatic Diseases.....	14 below	Croup	17 below
Hydrocephalus, cephalitis, and convulsions	15½ ,,	Zymotic diseases	22 ,,
Diseases of nervous system ..	19 ,,	Paralysis	26 ,,
		Typhus.....	32 ,,
		Erysipelas	36 ,,
		Scarlatina.....	49 ,,
		Small-pox	89 ,,

These numbers suggest the following remarks on the morbid character of the season :—

First.—That the mortality from zymotic diseases has been very low ; and among them small-pox, scarlatina, erysipelas, and typhus particularly so. (a)

Secondly.—Diarrhœa, which in the winter was amongst those zymotic diseases very greatly *below* the average (see *Medical Times*, August 22nd), has in the spring risen to be nearly as prevalent as usual, though the *total* mortality has been reduced 11 per cent.

Thirdly.—As in the previous winter, so in the spring, the only zymotic diseases that have been prevalent, are hooping-cough and measles. The excess of the latter above the average continues about the same as it was, while hooping-cough has increased in relative prevalence from 8 to 12 per cent.

Fourthly.—The mortality from bronchitis continues to be in excess of the average. It amounts to 43 in 100,000, while the average of the previous nine springs is only 38. There is so much difference between the number of deaths from bronchitis in the early and later years of registration as to show that much of it must be due to altered views of diagnosis prevalent in the profession. This idea is confirmed by the fact that as deaths from bronchitis have increased, those from pneumonia have diminished. By taking the average from the last 9 years only, instead of 17 years for which we have returns, we diminish the source of error, but perhaps do not altogether escape it. It may be that some of the excess during the spring we are considering, is due to improved diagnosis.

3.—*Meteorology of the Season.*

In temperature, the quarter consisting of March, April and May was about the average, April being a cold month and May a warm one. The amount of rain was much less than usual, especially in May. The proportion of east wind was very slight in March, (far otherwise from what it was in the same month of 1856), but it prevailed considerably in April and May, especially the latter. In March and April the barometer was low; in May, slightly above the average. The amount of barometric range was considerably more than usual, in each of the 3 months. A comparison of the humidity with that usual to the month, makes March to have been rather more humid than the average ; April still more so ; but May drier than usual.

To sum up these remarks : we have

March, negative as regards temperature; in defect as regards rain, east wind (especially), and mean height of the barometer; in excess as regards humidity and the range of the barometer.

April, in defect as regards temperature, rain and mean height of the barometer; in excess as regards east wind, humidity, and barometric range.

May, negative as regards the height of the barometer; in defect as regards rain (especially), and humidity; in excess as regards temperature, east wind (especially) and barometric range.

The meteorological character of *June* has probably little influence on the mortality of the spring ; its effect coming into the returns of the following quarter. It may be mentioned, however, that it was a warm month, with considerably more rain, a greater prevalence of east wind, higher barometer, and rather less humidity than usual.

4.—*Comparative Mortality of the Five Divisions of the Metropolis.*

The total mortality of the Metropolis having been 498, let us see what numbers represent the mortalities of the several divisions. To this end we must make the usual estimate for increase of population, which was different in each division; we must also correct for outlying workhouses, and distribute the deaths in Hospitals, Prisons, and Lunatic Asylums among the 5 divisions, in proportion to their other deaths. The following is the result :—

Western . . .	436
Southern . . .	480
Northern . . .	484
Central . . .	542
Eastern . . .	548

(a) The corresponding numbers for small-pox, during the last six quarters, commencing with the beginning of 1856, have been 18, 38, 52, 73, 78, and now 89 per cent. below the average.

On comparing this list with that for the winter, given in my last paper, it will be seen that although there are slight changes of place, yet the same conclusion may be drawn, viz., that the west, north, and south districts are more healthy than the average of London, the central and eastern less so. Moreover, out of a population of 100,000 in each division, 112 more persons died this spring in the eastern districts, than died in the western districts of the Metropolis. In the winter, this number, representing the difference of mortality between the most healthy and least healthy divisions of London, was very nearly the same, being 114.

Stoke Newington.

CASES IN PRACTICE.

ACUTE GASTRITIS, CHRONIC GASTRITIS, WITH REMARKS ON SEA-SICKNESS.

By C. F. MOORE, M.D., L.R.C.S.I., etc.

Acute gastritis is sufficiently uncommon to merit notice. I am desirous therefore to draw attention to this case. The patient, a young man, 18 years of age, about the middle stature, had been always rather delicate, suffering severely as a child from croup, and for some time past from colicky pains in the abdomen. He attributed these attacks of pain to the stooping posture which his trade, that of a shoemaker, obliged him so constantly to maintain.

July 8th.—P— first applied for advice on account of severe pain in the abdomen, which had caused him to roll on the floor, finding some degree of relief from pressure to the epigastrium and abdomen. He stated he had eaten a large quantity of cherries and drunk much beer the night before. Some days previously he had diarrhœa, which was followed by constipation; before I saw the patient he had some rhubarb and opium in a draught. I advised a hot poultice of linseed meal to be applied over the whole abdomen, and a draught of castor oil, with fifteen drops of chloroform, five of laudanum, a little mucilage and peppermint water. This was followed by a free action of the bowels and much relief, and as in the evening there was a feeling of nausea he had some hydrocyanic acid and mucilage draughts.

July 9th, 9 a.m.—Complains this morning of a return of pain: he drank lemonade quite too freely last night. There is great alarm evinced by the patient on my attempting to examine the region of the stomach, liver, or lower part of the chest; he also complains of suppression of urine for several hours; has been very restless all night, throwing his arms about, and complaining of much pain in epigastrium. I have not recorded the arterial pulsations at this visit, but remember being struck with its thready and peculiar character, as well as its slowness, being, as well as I remember, about fifty-eight. Respiration was very painful; he was not able to fill his lungs. I should mention that the slightest touch on the epigastric or hypochondriac regions caused such acute pain that I was unable to define by this means the seat of the disease. There was also most distressing nausea; in short, the patient presented so remarkable a picture of intense suffering, such as I have seen produced by a long continuance of acute, so to speak, sea-sickness, that I set down the complaint as gastritis—a disease which I have not unfrequently seen to follow sea-sickness.

Treatment.—Venesection to eighteen ounces. Hydrocyanic acid, two drops, with a little mucilage and water; to have four such draughts in the next twenty-four hours, and a small quantity of milk and ice water frequently, with no other food.

Immediate relief followed the bleeding, and at 9 p.m. the pain was much lessened; the pulse was sixty and soft, and weak, or, as I noted it at the time, "shaky," without that peculiar thready character mentioned at the morning visit. Urine—rather dark in colour—was freely passed this evening. Light poultices of linseed meal and bread and hot flannels were used to the abdomen since the morning visit. The patient enjoyed some refreshing sleep in the evening.

July 10th.—The report of this day states that in the evening P— complained of heartburn; pulse, sixty, more natural in volume and character; tenderness of the epigastrium almost gone. There has been no action of the bowels since the 8th inst.

13th.—Draughts of hydrocyanic acid (m j) have been continued twice or thrice daily, and the yolk of a fresh egg beaten up with a little milk, and then a very light pudding and a little rusk have been added to his dietary.

14th.—Appetite good; tongue becoming clean.

18th. — Continues improving, and soon after returned to his trade and has, up to present date, enjoyed perfect health.

The following case, which I at first regarded as congestion of the liver, I was subsequently disposed to regard as chronic gastritis. Many cases which came under my care during the past four months have shown a disposition to merge into gastritis and gastro-enteritic disease.

July 1st.—Mrs. M., aged about 40, a tailor's wife, complained of pain in the hepatic region, for which she had a dose of grey powder and a mild alkaline aperient draught. A linseed poultice was applied to the hepatic region.

2nd.—Pain continues. Ten minims of chloroform with a little mucilage and water gave relief, and was repeated towards evening.

3rd.—Two minims of hydrocyanic acid were substituted for the chloroform in the draughts, one of which was given three times a-day. The draughts and milk and water, which latter almost entirely constituted her food, were iced.

Mrs. M. continued under treatment for three weeks, suffering at times from great irritability of the stomach, occasionally with constipation, but more occasionally accompanied with diarrhœa. In this case, as in the preceding one, the patient's occupation seemed the predisposing cause of the illness, as she was very industrious in assisting her husband in his business, and constantly using the heavy "goose," pressing with the epigastric region the handle of the goose, or pressing-iron.

In another case the exciting cause seemed to be over-indulgence in fermented liquors; in another, no cause was very apparent; in a third, indigestible food, etc.; in none of these cases were any depletory measures required.

I have above alluded to cases of gastritis following sea-sickness; in one instance the symptoms only yielded to leeches, in another the patient was rendered so very low, having previously undergone active treatment for bronchitis in England, and being two months pregnant, that food had to be administered by enemata. In the case of a fireman, gastritis and fever succeeded sea-sickness. Generally when sea-sickness is long continued and severe, much mischief occurs if nourishment is not given in such a form and manner as may be best suited to the case.

I recently examined the stomach and intestines of a woman who died apparently from serous apoplexy, induced by intoxication. There was vascularity of the stomach and upper portion of the duodenum, with a dusky pink hue of the mucous membrane of the stomach in patches, composed of minute coloured points clustered together. About three ounces of a thickish grey fluid, with one or two globules of yellowish (bile?) matter, smelling strongly of eau de Cologne, were contained in the stomach. I may observe that the brain also exhaled the odour of eau de Cologne. An empty eau de Cologne bottle had been found in the hand of the deceased. In conclusion, I would draw attention to,—

1. The immediate relief afforded by a sufficient bleeding in the case presenting acute symptoms.
2. The necessity of not depleting too much.
3. The value of ice, either in small solid pieces as recommended by Dr. Stokes, or as applied to cool whatever food can be taken with advantage.
4. The importance of giving food suitable in quantity and quality, and sufficiently often, as advised by Drs. Hunter, Watson and Graves.
5. The possible necessity for administering food by enemata.

16, Old Burlington-street.

ON THE THERAPEUTIC EFFECTS OF GALVANISM.

By JOHN GRANTHAM, F.R.C.S.

In the *Medical Gazette* for March 17, 1848, and at page 240 in my "Facts and Observations in Medicine and Surgery," is a paper entitled "Retrospective Remarks on the Therapeutical Effects of Galvanism," up to the above period. I may refer readers who require further information on the subject of this communication to those papers. I now wish to add some account of my more recent experience.

Recently I have witnessed several cases of exceedingly painful affections of the feet, the sequence of rheumatic inflammation, with diminished and unequal power in the muscles of the leg and foot, also decreased temperature and tumefaction of the cellular structure, a condition not yielding to either general or local treatment with or without rest, resisting those principles of the practice of medicine which are now considered to be "rational." It is to the "rational practice of medicine" alone we ought at this time to direct our whole attention in contending against the many empirical systems so liberally paid for by the opulent; and I would here remark, 'tis a pity so many causes do arise to produce distrust in the minds of the public in respect to the many solid truths known and practised by our Profession, especially by those who have kept their minds alive to all the improvements; but unfortunately for us only to be acquired after spending many years in unceasing labour, amidst almost every hindrance.

Galvanism is an agent used by the empiric; and why? because the Profession have not made themselves practically acquainted with its utility in the treatment of diseases. My late friend, Dr. Marshall Hall, in his "Synopsis of Diastaltic Nervous System," page 76, says:—"There is a question in reference to the application of galvanism to the animal frame of the most intense interest." A current cannot pass without inducing an electrogenic state; the current may be applied and changed. It has been designated the 'Alternative Voltaique,' from its discoverer, as seen in the lower animals. The change of the current I am now satisfied is often attended with the most beneficial results, in lessening the irritabilities of the muscular fibre." Dr. M. Hall also puts the following question:—"What is the most probable good or therapeutic effect of galvanism? It may excite the failing heart in asphyxia or syncope, and the uterus in inertia of this organ. It may exercise the nervous and the muscular systems, and so restore them in some measure from atrophy and debility. It is in this manner useful in the paralysis remaining after the organic cause of the disease may have been removed. It may be useful in paroxysmal paralysis, in paralysis of the facial nerve from cold, in some hysteric forms of paralysis, etc."

Case 1.—Richard Aspin, aged 34 years (printer), sixteen weeks ago was attacked with lumbar pain, which continued three days. After leaving the lumbar region, it extended to the left hip and foot, attended with great coldness of the limb, inability to walk more than fifty yards without acute pain, completely incapacitating him from working as a block-printer. The locality in which he resides is damp, and surrounded with malarial exhalation. He is a man of temperate habits. After going through treatment both general and local without any benefit, he commenced the application of galvanism to the limb, by passing the current alternately from the spine to the foot, and from the foot to the spine, from a battery of 24 cups, containing circular plates of zinc and copper. In seven days the temperature of the leg returned to its normal standard, and the pain entirely abated, so as to induce him to resume his employ; but, in consequence of so early a return to labour, the pain returned on the third day. He again underwent the application of galvanism, with rest, or rather moderate walking, without inducing fatigue. After ten days, a full return of power and cessation of pain was maintained. He is now, at this date, Sept. 1, 1857, to use his own expression, "never better in my life." This case is illustrative of the potent effects of galvanism; so much so, that, unless witnessed, the reader could scarcely credit the superiority of this agent over every other means in the removal of pain, and also in the restoration of muscular power.

Case 2.—James Manser, aged 30 years, a ship's carpenter, stated that about seven years since he had been the subject of rheumatic fever. In the meantime, whenever he has been exposed to damp with fatigue, he has had pain and swelling in both feet, which have frequently disabled him from duty, and only mitigated with rest, aperients, the mineral acids, hot baths, iodide of potash, and counter-irritation, but without any permanent relief, especially during the last three years. In September of this year he commenced the application of the galvanic current through the feet, passing it from the heads of the fibula to the feet, and, after seven days' applica-

tion of the galvanic current, he felt so far relieved from pain and swelling as to enable him to return to his duties on board of an Ostend steam-vessel.

Case 3.—Mr. Thomas E., aged 27 years, had rheumatic fever about two years and a half from the date of this paper, September 1, 1857, which returned in the beginning of 1856, with painful swellings of every joint, since which time the feet have been more or less tender, excepting in the autumnal part of 1856, when the feet were for a time exempt from all pain and tenderness. The pain again came on in the January of this year, with symptoms of endocarditis, the urine containing urates in great excess, with blood-corpuscles, specific gravity, 1·023, dark amber colour, and semi-transparent. During the treatment with iodine and hydrargyrum, and Donovan's solution of arsenic, the urates became displaced with urie acid crystals, the blood-corpuscles disappeared, and the health became much improved, all cardiac symptoms diasappearing; yet there remained great inability to walk, with some loss of flesh. In August he tried the baths in Germany, which evidently much improved the muscular and nervous power, and in some degree lessened the pain in the feet. In the beginning of September I examined the feet and legs, which presented an unequal size of the gastrocnemic, tibialis anticus, and flexor longus policis muscles, with partial contraction of the extensor proprius policis tendon, on the dorsum of the great toe of the left foot. On reflecting as to the various causes of pain, I suspected it to arise from an unequal bearing of the body on the surface of the astragalus, pitching the weight of the body on the outer cuneiform bone, as well as from subacute inflammation of the cellular structure of the feet, there being swelling, in connexion with pain, and partial redness. Wherever there can be detected the least inequality of bearing on the astragalus, whether during growth or as the result of rheumatic inflammation, the first symptom will be a shortening of the great toe; also from a neglected case of fracture of the fibula, the extensor longus policis tendon will be seen to start up on the dorsum of the great toe. The above case has yielded to the influence of galvanism, and he is now walking with freedom from pain. There remains some defect in the elastic movement of the feet.

Crayford, Kent.

THE LONDON

PRACTICE OF MEDICINE AND SURGERY.

FRACTURE OF THE SKULL WITH DEPRESSION, BUT NO SYMPTOMS.

ST. BARTHOLOMEW'S.

Case 1.—DEPRESSED FRACTURE OF THE SKULL WITHOUT SYMPTOMS.—TREPHINING ON THE FIFTH DAY.—DEATH.

(Under the care of Mr. PAGET.)

A young and healthy Irishman was admitted with a scalp wound, caused by the falling of a hod of bricks on his head. Mr. Barker, the House-Surgeon on duty, examined the wound, which was nearly in the mesial line, and more than two inches long, and found that it not only laid bare the bone, but that the bone itself was distinctly fractured. The finger nail went down between two portions of bone, one of which was evidently depressed. There were, however, no symptoms whatever either of compression or irritation, and the wound was accordingly dressed in the usual way, and the man sent to bed. During the four days following the man did remarkably well, and was wholly free from cerebral symptoms. A shivering fit then occurred, and was succeeded by difficulty in forming his words, and tendency to stupor. He gradually became more and more insensible. Mr. Paget now determined not to delay the use of the trephine. After removal of a thick piece of skull, a dark-coloured clot was seen lying on the dura, which latter had given way at one spot and allowed of a small protrusion of the brain. Some small portions of bone were taken away, but no large depressed portion had been found. Chloroform had been used, and on his recovery from its influence the symptoms seemed much as they had been before. Subsequently retention of urine and hemiplegia of the right side came on, and he sank into a state of profound coma, and so died. The interest of the case is greatly diminished by the circumstance that the friends resolutely refused to allow of a post-mortem.

The question which this case will at once excite, is, ought not the operation to have been performed immediately after admission, as was done in Case 4 in our series? This query most Surgeons will, we expect, answer in the affirmative. Mr. Paget, it must be observed, did not see the patient until twenty-five hours had elapsed, and there had not then any symptoms occurred. If he had seen him at first he would, we believe, have at once proceeded to elevate the bone. On the other hand, it must be kept in mind that not unfrequently cases in which portions of the calvaria are distinctly depressed often do remarkably well without operation. In children, in whom not only is the bone much more elastic but the brain is more tolerant of irregular pressure, these cases are frequent, and the rule to let well alone is fully established. But even in adults such instances do every now and then occur. A man treated a few years since by Mr. Holt in the Westminster Hospital was a striking example of it. The depression of a portion of one parietal bone was such that it was quite apparent even in a cast, and a model so taken is we believe at present in the Museum of the Hospital. Yet the man never had any bad symptoms, and made an excellent recovery. The annals of Surgical experience, if searched, might offer not a few similar facts, and two or three at least have come within the range of the writer's own experience. That such patients are probably more liable than others to suffer from ulterior consequences, in the form of epilepsy, insanity, &c., than if elevation had been practised, must *in limine* be borne in mind. That elevation does not, however, furnish security against meningitis in all cases, Case 3, and a host of others furnish proof. We must not, however, enter further into the question so often before detailed, as to whether symptoms should be anticipated or waited for, but must content ourselves with stating that we believe that the general verdict of the Profession, and in all probability the correct one, is in favour of immediate operation in all cases of manifest depression.

GUY'S HOSPITAL.

Case 2.—FISSURE-FRACTURE OF THE SKULL.—CONVULSIONS.—TREPHINING ON THE FOURTH DAY.—RECOVERY.

(Under the care of Mr. COCK.)

A boy, aged 12, previously in good health, was admitted two days after having sustained an injury to the head in a fall from a tree. He was suffering from indications of slight compression on the left half of the brain, there being partial paralysis of the right side of the body. As from his age, and the ill-developed character of the symptoms, there seemed fair reason to hope that no operation would be requisite, he was merely kept quiet in bed during the first forty-eight hours. Convulsive twitchings of the face, however, supervened, and were followed by violent spasmodic contortions of the affected limbs. It was now determined at once to employ the trephine. It should here be stated that there was no wound of the skin, and that, beyond a puffy swelling over the part and the existing symptoms, no evidence of fracture was present. Mr. Cock cut down on the contused part, that is, over the front part of the left parietal bone, on exposing which a fissure was discovered. There was no depression whatever, but the blood oozed up from the line of fracture. Hey's saw was used, and an almost square portion of bone, about three-fourths of an inch each way, was removed. No blood was found effused between the bone and dura mater, and the latter membrane was quite sound. A few very slight twitchings occurred during the twenty-four hours immediately succeeding the operation, but, with this exception, the symptoms were wholly and permanently relieved. The boy made an excellent recovery.

Of the signal relief afforded by the operation in this case, two possible explanations may be offered. In the first place, although no depression could be discovered, yet it is very possible that some splinter of the innermost layer of bone, or its fractured edge, was causing irritation to the dura mater. Of the existence of such source of irritation as has been observed, no proof was afforded at the operation. Perhaps

a more probable explanation is, that the convulsions and the slight degree of paralysis present had both resulted from severe concussion of the brain-substance, than from either actual compression or mere meningeal irritation. Convulsions from concussion only are not at all of infrequent occurrence, and are sometimes very violent, while a slight degree of paralysis is not by any means rare. The observations by Dr. Bright of the frequent occurrence of minute punctate extravasations into the cerebral substances in cases of severe concussion are explanatory of these phenomena. The removal of a portion of bone, immediately over the part in which such a condition existed, might well be supposed capable of affording immediate and very great relief.

Case 3.—COMPOUND FRACTURE OF THE SKULL.—ELEVATION.—SUPPURATION.—ARACHNITIS.

(Under the care of Mr. COOPER FORSTER.)

The following case is an example of one of the accidents which sometimes follow these injuries, even when placed by surgery under the most favourable circumstances.

A lad, aged 16, was admitted soon after having received a violent blow from a piece of iron over the left side of the head. There was a compound and comminuted fracture of the parietal bone, with evident depression, yet no symptoms whatever existed. The lad undressed himself, and got into bed without assistance. Immediate elevation of the depressed portions of bone was performed, and the bleeding from the middle meningeal, which had been free, ceased spontaneously afterwards. The dura mater was not much injured, and the brain was nowhere exposed. The lad expressed himself as relieved from the sense of weight he had felt before the operation. The accident had occurred on a Monday, and up to the next Friday all seemed to be doing well. On the latter day, however, he became drowsy, then delirious, then comatose. Death in coma took place on Saturday, and the autopsy showed acute suppurative arachnitis of the left hemisphere. A considerable quantity of pus had been effused, but the inflammation did not extend itself below the tentorium or to the opposite side.

Case 4.—COMPOUND FRACTURE WITH DEPRESSION. — NO SYMPTOMS. — ELEVATION. — RECOVERY.

(Under the care of Mr. POLAND.)

A young man of about 22, was admitted under Mr. Poland's care about four months ago, having sustained a compound and comminuted fracture of the upper part of the frontal bone, near its junction with the parietal. He had no symptoms whatever. The depression being manifest, Mr. Poland immediately enlarged the scalp wound, employed Hey's saw, and having removed some small portions restored the depressed fragment to its place. No ill symptoms occurred afterwards. The man was up and about the ward a fortnight after the occurrence, and he ultimately left the Hospital quite well.

ST. MARY'S HOSPITAL.

OPERATIONS FOR PROLAPSUS UTERI AND RUPTURED PERINÆUM.

Case 1.—On June 10, Mr. Baker Brown performed his usual operation on A. H., aged 33, the mother of one child. She had an average labour, but got up and went about her usual duties at a very early period. She soon began to experience a sensation of bearing down, and this gradually increased, and she applied at an Hospital, where she was admitted, and an operation performed without success. The uterus now protruded to the size of a nine months' fœtal head, and the pain was correspondingly severe. The state of the uterus much affected her general health, and she was very anxious for something to be done. The operation was performed after the usual manner, and the deep sutures were removed on the third day. The parts were firmly united. The bowels were opened about the 11th day, and the operation was perfectly successful.

Case 2.—M. H., aged 27, mother of two children. Her first-born 4 years of age; the labour was natural and easy, but the midwife who attended was in a great hurry, and laid hold of the child and extracted it without waiting for pains. She perceived that she could not control her bowels immediately afterwards. She had a second child two years ago. On admission she had complete rupture of the perinæum through the septum, and had no control over the bowels. Mr. Brown had performed the usual operation on July 1st. There was rather more bleeding than usual, and one small artery required torsion. All went on well afterwards, and the parts are firmly united.

HOSPITAL NOTES.

REMOVAL OF THE LENS, Etc. FOR THE RELIEF OF CONICAL CORNEA.

The use of powerfully concave glasses after removal of the lens in cases of conical cornea was well illustrated by a case which came under our notice the other day in Mr. Critchett's practice at the Moorfields Ophthalmic. A labouring man from the country, aged 31, presented himself about six weeks ago, being very nearly blind from the joint effect of conical cornea and opaque capsule in the axis of vision. He stated that he had been born blind, and at the age of four had had his sight restored by couching by Mr. Lawrence in St. Bartholomew's. After Mr. Lawrence's operations he could see fairly until the age of 20, when his sight began gradually to fail him. To use his own expression, a sort of film seemed to form over them, and he saw things very indistinctly. Both corneæ were now conical to a marked, though not to the most extreme, degree, and in each pupil was a floating piece of opaque capsule. It appeared probable that the failure in his sight was rather connected with the alteration in curve than with the capsular remains, since the latter had most likely existed ever since the original operations. He had never worn spectacles. Mr. Critchett tore through the membranein each eye with the needle, and ordered him to be supplied with powerfully concave glasses. The effect of these is to enable him to see very fairly. He can distinguish features, see the time by the clock, and read large print. His vision, as regards distant objects, and when looking towards the light, is still very indistinct, but the advantage gained is quite sufficient to encourage to the adoption of similar measures in future cases of this almost hopeless affection. By first getting rid of the lens, the eye is made amenable to relief by spectacles, when it would not otherwise have been so. It is an interesting speculation in the above case, whether the production of the conical shape of the cornea may not have been due to the efforts to adjust the eye after removal of the lens, the use of the ordinary magnifying glasses having been neglected. A slight degree of conical cornea would be an advantage after the operation for cataract. It is easy to conceive that if spontaneously produced with a curative intent it might in the end exceed its mission, just as hypertrophy of the heart in obstructive valvular disease often does, and cause a greater evil than it had at first relieved. This case is one of several which have recently occurred at the Ophthalmic, in which grown-up persons, having been operated on in infancy for cataract, have neglected, through ignorance, to procure spectacles, and, consequently, never obtained good sight.

CHRONIC VOMITING WITH SARCINA.

There is a case now under Dr. Fuller's care in St. George's, in which the sarcinæ ventriculi are very abundant in the matters vomited. The patient is a sallow man, aged 35, by occupation a fisherman. His symptoms, the chief of which has been obstinate vomiting, commenced about three months ago. The quantites ejected are often very large. There are no marked signs of obstructive pyloric mischief, malignant or otherwise. The vomiting has been less frequent since his admission, not having occurred more than once a-day on the average. Dr. Bence Jones remarked the other day in going round the wards, respecting the presence of sarcinæ, that they were not at all infrequent in cases of chronic vomiting from whatever cause, and possessed, as far as he was aware, no special value as an indication. This is, we believe, the opinion now generally entertained respecting them by our hospital physicians.

CHLORATE OF POTASH IN SCURVY.

In the course of a recent visit to the decks of the Dreadnought Hospital Ship, the resident Medical officer, Mr. Corner, directed our attention to a severe case of scurvy, and stated that he now always prescribed the chlorate of potash in that disease. It had the effect, he stated, of curing the sponginess of the gums much more rapidly than could be done by any other treatment. He had never given it excepting with lime-juice, etc. at the same time; and the proof he relied on was, that in cases treated without it, and by the latter means only, the gums got well much more slowly. The speedy restoration of a sound state of gums is of course of great importance, since it enables the patient to take food much better. Mr. Corner's fact is one of great importance, since it goes to establish the assertion of the writer in a report on this salt, that the chlorate is curative of all inflammations of the mouth and gums, whatever their cause, syphilitic and cancerous affections alone excepted. It will cure the follicular, ulcerative, and phagedænic forms of stomatitis like a charm, and perhaps eventrue cancrum oris if taken early; in hæmorrhagic purpura, although it has no influence whatever on the disease itself, it will harden the gums and prevent their bleeding; it is a speedy remedy in mercurial ptyalism; and now we may add the spongy gums of scurvy to the list of mouth affections over which its spell has potency. What is more singular still, it will, when given in full doses to healthy persons, in some instances, produce a form of stomatitis exactly resembling the one against which it is specific? Such are its powers; who will explain to us its *modus medendi?*

TUMOUR IN THE UPPER JAW.

There is at present a case of some interest under Mr. Lloyd's care in St. Bartholomew's, in which a healthy looking young man, aged 23, suffers from a tumour of the upper maxilla probably of malignant nature. He was originally admitted under Mr. Mc Whinnie's care, and several consultations were had as to the feasibility of excising the bone. The tumour, however, was growing with much rapidity, and had already extended so far that, with scarce a dissentient, all idea of operative interference was abandoned. The right jaw is the one involved, and great pain has attended the growth. The man has wholly lost sight in the right eye although there is no outward evidence of extension of the disease into the orbit. He is not aware of any family predisposition to cancer; the tumour commenced spontaneously seven months ago. The case is well worthy the examination of any one who may have the opportunity of seeing it. The healthy appearance of the patient is not its least remarkable feature.

MALIGNANT TUMOURS CONNECTED WITH BURSAL ENLARGEMENTS.

Mr. Erichsen took the opportunity the other day, after having amputated the foot on account of it, of making some interesting remarks on the occurrence of malignant disease in association with bursal enlargements. The case under notice was that of a healthy looking man, aged 36, from the sole of whose left foot a largish tumour containing fluid, having thin walls, and in all respects exactly resembling a distended bursa, had been dissected out a year ago. This tumour had existed for twelve years, but had latterly from its size become very troublesome. There was nothing about it to excite the faintest suspicion of malignancy, and the wound made healed quickly. Some months after cicatrisation was complete, however, a nodular, firmish growth began to form beneath the scar, increased rapidly, and became adherent to the skin. There was little room for doubt, even before the operation, that this recurrent growth was really carcinoma. After the amputation, which was performed on Wednesday week, the diagnosis was fully confirmed, a large infiltrated mass of cancer filling the sole, being found. The man was not markedly cachectic, nor were the inguinal glands enlarged. Mr. Erichsen remarked that he had in one or two other instances observed the sequence of malignant affection after the removal of diseased bursæ, and that he was inclined to think there was some connexion between the two. After all, however, the occurrence should, perhaps, be classed merely as an instance of the localisation of cancer by former operations. A cicatrix in the sole of the foot would be especially likely to be subjected to continued irritation, and it is well known that every now and then cancer will appear in old scars, fistulæ, etc. We have twice known urinary fistulæ become cancerous, and have repeatedly noticed the same ill event in old ulcers on the leg. Soot cancer, cancer on the lip from smoking, in the cheek from broken teeth, are all examples of the influence of local causes in exciting its outbreak in a particular locality, and very probably under conditions, in which, had they not existed, it might not have appeared at all. Whether the connexion between bursal tumours and cancers is more than may be thus accounted for, future observers must decide.

CHRONIC PLEURISY WITH EFFUSION—THORACENTESIS.

An instructive case of chronic effusion into the pleural sac is at present under Dr. Jeaffreson's care in St. Bartholomew's. The man is aged about 55, and was in tolerable health, when an illness, characterized by the symptoms of subacute pleurisy, first occurred. This was about five months from the present time. He was admitted about six weeks ago, Dr. Martin being then on duty. The left chest was found to be full of fluid, though not very greatly distended, the heart not being displaced. Puncture of the chest was performed by Mr. Cooté at Dr. Martin's request, and upwards of two pints of clear serum evacuated. Dr. Jeaffreson has since pursued a diuretic and mercurial plan of treatment, but without as yet any effect in procuring the absorption of the remaining fluid. The man has suffered but little in general health, and has been allowed to be up and about the ward. The non-absorption of the effusion has suggested to his attendants whether there may not possibly be some mechanical cause for it, in the shape of a malignant tumour or aneurism. Against such a supposition, however, is the man's account of a pleuritic seizure in the first instance, and after all it is not so rare for absorption to be exceedingly tardy in similar cases. There is at present an almost parallel one under Dr. Risdon Bennett's care in St. Thomas's. In it a man of about 45 has had the left chest just full for about three months, six weeks of which time has been spent in the Hospital. Mercurials have been cautiously but fully used, as well as squills, broom, and other esteemed diuretics. No effect on the fluid has, however, as yet been produced. The man is kept in bed, and suffers remarkably little inconvenience. Drs. Barker and Bennett met in consultation three weeks ago as to whether the chest ought to be relieved by puncture, but were of opinion that it would be better not to interfere. A few weeks ago we also saw a case of like nature, only in a much younger subject, under Dr. Barlow's care, in Guy's. In it absorption was just complete, and the boy was about to leave the Hospital. Dr. Barlow observed that his faith in the usefulness of thoracentesis had very much waned of late. The majority of cases in which it was adopted would he believed do equally well without it.

TREPHINING FOR ABSCESS IN THE HEAD OF THE TIBIA, TWENTY YEARS AFTER A SEVERE INJURY.

The following case is peculiar on account of the long interval which had elapsed between the receipt of the original injury and the operation for the relief of the abscess. It must be observed, however, that this is no evidence that the abscess had originated at all immediately after the injury, though from its size, and the date of symptoms, it had most probably existed for several years. A man, aged 34, was admitted about a month ago into St. Bartholomew's under Mr. Lloyd's care. He complained of suffering intense pain in the upper part of the left tibia, and had done so at times for several years. Blisters, etc. had been used, but without any benefit. The bone was considerably enlarged in its upper third, and the description of the severity and wearing nature of the pain which the man gave, were sufficient, coupled with that fact to induce Mr. Lloyd to give a confident opinion as to the existence of abscess. The overlying skin was quite sound, but showed the marks of an old cicatrix. The man stated that this was due to disease of the bone, from which he had suffered 20 years ago, after receiving a kick from a donkey on the part. Abscesses followed the injury, and some pieces of bone came away. The part healed after an illness of 20 weeks, and he regained perfect use of the leg, which for many years was not painful. Mr. Lloyd cut down on the enlarged part of the bone, about a hand's breadth below the articular surface, and used the trephine. As soon as the plug of bone was removed a profuse gush of matter took place, and it was estimated that a full ounce was removed. The cavity

did not contain any dead bone, but was lined by a villous membrane. It extended very near to the joint above. The man has since been wholly relieved of pain, and the wound is now granulating.

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Medical Times & Gazette.

SATURDAY, NOVEMBER 7.

SUICIDE OF THE SYDENHAM SOCIETY.

Our last week's Journal will have informed our readers that there is much reason to fear that the Sydenham Society is about to come to an untimely end. We doubt not that this announcement will have occasioned considerable surprise. Its own members will already, from documents just issued, be well acquainted with the reasons which have led to this sudden and unexpected proposal. To others we may briefly state that its numbers having so far diminished as to preclude the possibility of its operations continuing on the same scale as heretofore, the Council think it better that it should at once fall with dignity in the midst of its career than be prolonged with any risk of diminution of its sphere of labour or its honours. All admit that it has achieved a great success in the past. It has published upwards of forty volumes, few of which are otherwise accessible to the English reader, and many of which are of the very highest worth. Perhaps no single work is more frequently quoted from than Rokitanski's Pathological Anatomy, and we question whether a dozen copies of this work, other than the Sydenham Society's translation, exist in the British Islands. Louis on Phthisis, a work which, apart from its intrinsic value, has done more than any other to familiarize the English mind with the advantages of the numerical method, of which it is so admirable an example, stands in a similar position. Hecker's Epidemics, Simon's Chemistry, Dupuytren's Surgery, need only to be named. Nor have the more recent issues from the Society's press in any respect belied its early promise. Wedl's Pathological Histology, Kölliker's work, and the volumes of Küchenmeister and Siebold on Parasites and Intestinal Worms, are all of them standards on the Continent and without rivals in this country. The latter has been so carefully brought up to the latest knowledge, that by correspondence with its author much additional matter has been obtained and inserted which did not appear in the original German. Nor have those works, which by a certain portion of the Profession have been regarded as dry, and too abstruse and antiquated to be of practical value, been among the least successful of its selection. Paulus Ægineta, the book which probably nine-tenths of the dissatisfied of the class alluded to would name as an example, was very acceptable to many, and, judged of by a commercial test, has, we are informed, been the greatest favourite of all, the whole stock of surplus copies having been, we believe, very speedily exhausted.

Now, shall a Society which has done so much in providing for the literary wants of our Profession be permitted to die out? Be it observed that the Society is not in financial difficulties. Its treasurer's account shows that it might be wound up at once without any call upon its members, and possibly with a small surplus on hand. Its members now number nearly a thousand, and they never in its palmiest days were more than sixteen hundred. Scarcely since its origin has any canvassing for new names taken place, although a very large majority of its losses have been by the fell hand of Death, and half a generation of young and zealous men have started forwards to occupy the vacancies thus left in the ranks of the Profession. In many cases local Secretaries have been removed, and have not been replaced. These circumstances,—and we mention them without the slightest wish to detract from the meed of praise due from the Profession at large to those who have for so long administered the affairs of the Society,—appear to us to explain most fully its present condition, and at the same time to afford large hope for its future, should the contemplated suicide be abandoned. It is easy to talk of reforming the Society at a future time; but if once the present machinery were to be taken to pieces much trouble would be incurred before it could be re-constituted. In thus urging the propriety of an attempt to continue it we are far from wishing to assert that its past course has been so perfect that it ought to be taken as the model for its future proceedings. More energy on the part of its Secretaries and friends in the way of keeping up its lists of members will, be necessary; and it will be desirable to avoid certain errors in judgment formerly committed in the selection of works. If it appear to be the general feeling that its original object—the republication of old works—has been fully accomplished, it may be made widely known that it will henceforth select only those of modern date, and of more directly practical interest. With such an understanding, we have little doubt but that by an active canvass the present list of members might be easily doubled, and that the Society might be enabled to pursue a career of increasing usefulness and honour.

In the mean time we call upon its present members to be prompt to the rescue. The decision of this evening is to be final, and unless a good attendance be secured, and a full expression of hopeful and energetic sentiment take place the doom of the Society is sealed.

THE WEEK.

Since our article last week on the late Hospital election at Birmingham, Mr. Gamgee has published a pamphlet entitled "Social Science and Actual Life." The following sentences are all we need extract: "Setting aside all personal claim, on what principle did the Council, with the majority of one, pick out Mr. West from the large batch of candidates, placing him above five such men as Hunt, Furneaux Jordan, Lakin, and Moore. Hunt is the very essence of a good surgeon, thirty years of age, has filled numerous offices with distinction, proved himself an excellent operator over a period of several years, and published a series of memoirs on fractures, which for practical value are equalled by few, surpassed by no, contributions to periodical Medical literature. Furneaux Jordan's academic career was unusually distinguished; he has held office as a Medical Tutor and Demonstrator of Anatomy, he has made himself practically acquainted with the state of surgery in the great schools of Edinburgh and Paris, and some of his literary contributions exhibit qualities of the first order. Of Lakin, Mr. William Bowman—without exception one of the most reserved and most competent professional judges in the world—speaks in terms of the highest eulogy, and Deputy-Inspectors

General Mouat, C.B., and Taylor, C.B., testify to the fact that on the battle-fields of the Crimea he occupied one of the most responsible positions, giving evidence of the highest moral courage and of consummate operative skill. And again, on what principle is Mr. Moore's career, the experience he has acquired in Persia, the trial he has endured in India, to be ignored for a gentleman, aged twenty-four, for three years House Surgeon to the Queen's, with one hundred a year, snug apartment and good board? What is the use of talking of square men in square holes in the face of such a proceeding as that—Who will work if such is the road to eminence? who can keep up buoyant spirits under such a load of flagrant injustice?"

At a meeting of the Professors of Queen's College, held on Monday, November 2nd, 1857, Dr. Birt Davies in the Chair: On the motion of Professor Dr. Heslop, seconded by Professor Knowles, it was resolved unanimously that the following appeal be addressed to the Council:—

"The Professors of Queen's College at Birmingham most respectfully appeal to the Council to reconsider their decision on the recent election of a Surgeon to the Queen's Hospital, the Professors being unable to resist a conviction that the members constituting the small majority by which Mr. West was elected, were inadvertently led by personal regard for him to overlook the fundamental principle (*Detur digniori*) prescribed by the charter and bye-laws for the election of the Medical officers.

"That such was unfortunately the case, is evidenced by candid avowals that promises were given previous to the presentation of the Professors' Report, and by the fact of one of Mr. West's supporters (the majority being only one) not having attended any previous meeting of the Council for several years.

"The Professors, in the discharge of their duty, after fully weighing the qualifications of the several candidates, were led to give their decision in favour of Mr. Gamgee as the candidate 'best fitted to fill the vacant appointment,' solely by the superior weight of his testimonials, not one of the Professors having the slightest personal acquaintance with him.

"The Professors, since the presentation of their Report, have had several interviews with Mr. Gamgee, and they cannot but express their earnest conviction that he fully merits the strong recommendations in his favour.

"The Professors therefore trust that the majority of the Council will not confirm a nomination founded on personal predilection, at variance with the rules and regulations of the College, and detrimental in the highest degree to the future welfare and reputation both of the College and Hospital.

"In making this appeal, the Professors are most anxious that it should not be interpreted into an impeachment of Mr. West's qualifications on any other ground than inferiority of age, standing, and practical experience, when compared with his more advanced competitors."—WILLIAM SANDS COX, Dean of the Faculty.

This Memorial is so temperately drawn up that the Council could not refuse to accede to it, and they have entered upon the re-consideration of their recent decision.

The last quarterly return of the Registrar-General is one of unusual ability and interest. Let these facts be borne in mind:—"The annual rate of mortality per 1,000 during the summer was 25 in the town districts and sub-districts, where 8,247,017 people dwelt in 1851 upon 2,149,800 acres; and 17 in the other districts and sub-districts of England and Wales, where 9,680,592 people dwelt on 35,175,115 acres. If the mortality in the towns had been at the same rate as the mortality in the other districts, the deaths, instead of amounting to 55,733, would have only amounted to 38,080. Thus in 92 days 17,653 persons perished untimely in England. Well may the Registrar exclaim:—"What was the cause of this great destruction of life? Evidently the violation of the plain natural laws of life. And the strict observance of these laws must be of the utmost importance to the welfare of the human race, otherwise their violation would not be so terribly punished by the Almighty. Indeed, if the English race could lose strength, beauty, health, and life in the impurities of its dwelling-places with impunity, the imagination of Swift alone could conceive—his pencil depict—the depth of degradation to which the nation might fall." When we have a Medical Officer of Health for every district in the kingdom we may expect to see our homes, our towns, and our cities made healthy, and human life attain its natural duration.

We are happy to hear that the local authorities in the North show that they are not insensible to the dictates of common sense, and are taking reasonable precautions against the importation of cholera. A Scotch vessel reached the Tyne from Hamburgh with a seaman on board ill of cholera. He was taken ashore and died. To avoid such unnecessary danger to the population, an Hospital is being fitted up, in order that in any similar case patients may be removed on shore without being brought into contact with the general population. Similar precautions are being adopted in other north-eastern ports. It is exactly what we have repeatedly insisted upon, and what will be done in London when a few thousand more lives have been sacrificed to stupid official obstinacy.

The main drainage of the metropolis is just where it was. Sir B. Hall rejects the scheme of the Metropolitan Board of Works. The Board of Works reject the scheme of Sir B. Hall's engineers. We are threatened with cholera. People are poisoned by the excretions of their neighbours; and on the 14th of October the Board of Works appoint a committee *to draw up a communication to Sir B. Hall*. On the 3rd of November, the Board meet *to consider the draught of the letter*, and after a very lengthened discussion agree that a deputation should wait on Sir B. Hall. Three weeks' labour, and what a glorious result! A Medical Minister of Public Health, with Brunel, Stephenson, or Cubitt to help him over engineering difficulties, would make short work of the Soho babblers and their schemes.

A Blue Book has just appeared on Friendly Societies in England. It appears that there are 26,000 of these associations. and as one of their chief objects is to afford assistance to their members in Sickness, the subject is of considerable interest to the Profession. With regard to the probable period members of these clubs may be expected to require medical assistance, the Report states:—"That the average sickness of a male to be expected during the thirty-two years intervening between the ages of eighteen and fifty is determined with sufficient accuracy for all practical purposes, since there have been three different collections of returns tabulated independently; and the results given by each are so far identical that they corroborate each other. These give either a little more or a little less than two hundred and sixty days as the total amount of sickness to be experienced on an average by each individual during the period of thirty-two years above referred to." After the age of fifty the results are found to be so very different that no satisfactory conclusions have been arrived at. The average amount of sickness among females appears to be considerably higher than that to which males are liable.

Dr. Letheby's annual report on the sanitary condition of the City has just appeared. The effect of town life on mortality is well marked in the following paragraph:—"The mean age at death of adult males in the City is 51 and of females 55. In all England it is 60 and 61; so that in one case about 9 years is taken from the lifetime, and in the other

about 6. And again, if we examine the longevity of adults at other ages, it will be seen that the contrast is equally great. At 45 and upwards, the mean age at death of the male citizen is 62, and of the female 65. In all England it is 68 and 69. At the age of 65 a man with us may expect to live to the 72nd year, and a woman to the 75th; but in the whole of England the expectancy is to the 76th and 77th. These are the numerical exponents of the strain upon a City life, and they testify of the penalties that are paid to excessive civilization." Yet Dr. Lethcby, curiously enough, looks upon attempts to get rid of large workshops and manufactories from our crowded cities as "meddlesome interference with industrial operations," and "mischievous sentimentalism."

Dr. Snow's important researches upon the recent outbreak of cholera at West Ham have strengthened his previous conclusions as to the dependence of the disease upon the water used for drinking being impregnated with fæcal impurity. The single case of death from cholera recorded in the las Weekly Return of the Board of Health is remarkably corroborative. A lad residing at Bromley, 14 years of age, was attacked on the 9th of October, and died 20 hours afterwards. The Officer of Health for the District referring to this case observes, "I ascertained from the boy's father that he walked on the 7th to Abbey-row, West Ham, the seat of an outbreak of cholera, and he drank some water from the very pump which supplies the houses of Abbey-row." The foul condition of the water of this pump has been already described.

In connexion with the subject of slaughter-houses which we noticed last week, we have now to draw attention to a very earnest special report upon the same topic, by Dr. Conway Evans, to the Board of Works of the Strand district. From this document it appears that, while the population in this district is very dense, and the infant mortality is so high as to exceed even that of the City of London, there are no less than forty-seven slaughter-houses, twenty of which are situated in cellars, kitchens, or areas under inhabited houses. It also appears that, with the consent of the local authorities, some of the meat sold in this district is killed in an underground slaughtering-cellar, in which a water-closet is situated, and that the meat is hung up within two or three feet of this place; and that sheep, previously to being killed, are actually kept in this water-closet, their heads being literally placed in the pan of the closet. From a tabular statement, given by Dr. Evans, it is shown that in twenty-nine of the metropolitan districts from which he obtained returns, very few slaughter-houses are licensed under inhabited dwellings; and the Strand district, therefore, presents an unenviable singularity in this respect. Dr. Evans drew the attention of the local Board to this subject last year, but his remonstrances were disregarded and the consequence has been that in the present year application has been made for the licensing of eight new slaughter-houses in the Strand district, every one of which is under an inhabited house. Dr. Evans very forcibly points out the great danger to health which the practice of slaughtering in such situations must necessarily occasion, and we hope that his present remonstrance will produce the desired effect upon the minds of the members composing the Board of Works of the Strand district.

Drs. Traube and Bärensprung, who had acquired such high reputations in Berlin as *privat-docens* (that is, teachers unconnected with official position, the raw material from whence some of the best professors have been selected) have just been appointed extraordinary Professors in the Berlin Faculty; and there can be no doubt that, with such men as Virchow, Langenbeck, Gräfe, and Traube, acting harmoniously together, the Berlin School will soon recover its former high position. It may be remarked that, in contrast with the bigotry of Austrian regulations, prohibiting Protestants in future to hold Professorships, Professor Traube is a member of the Jewish persuasion, no question, ever being asked of any candidate as to the nature of his religious belief.

It is said that the Military authorities of France are suffering, like those of our own country, from the great difficulty in obtaining candidates for the Army Medical Department. The number of Medical students is said to be not one-third what it was fifteen years since, and to hardly suffice for the supply of the civil medical service of the country. Moreover, commerce and the military schools attract great numbers of young men, and the authorities have become sensible that greater advantages must be held out to induce a larger proportion to follow the career of military medicine.

Medical Association in Paris seems to be making considerable progress; for there are now two Medical and Scientific clubs in process of formation, and M. Amedé Latour, editor of the *Union Médicale*, is organising a general Medical Association for the protection of Medical interests throughout France. The club started by M. de Castelnau, of the *Moniteur des Hôpitaux*, has already commenced operations, having chosen M. Chassaignac for its President, and M. Bouley for its Vice. At present it is held at the offices of the Journal. The editors of, or contributors to Scientific Journals, and the authors of works are alone admissible, and the members are limited to 300. The election is to be by ballot, a fifth of black balls excluding. The rooms are to be open from the morning until midnight, and every Friday evening is to be devoted to the discussion of scientific communications. The subscription is to be 30 francs per annum, with 5 francs entrance. Is there not room for some such institution, upon like moderate terms, in London?

REVIEWS.

Pathological and Practical Observations on Diseases of the Alimentary Canal, Œsophagus, Stomach, etc. By S. O. Habershon, M.D., Fellow of the Royal College of Physicians, Assistant-Physician to Guy's Hospital, etc. etc. 8vo. pp. 388. London: 1857.

The place of the facetious knight who told of the stomach and the many difficulties it had to contend with knows him no more; but still the organ and its continuations labour heavily. In vain has he instructed the public how to preserve a cheerful countenance, and prepare, by gentle attentions, the digestion for its daily duties. Despite the "sovereign'st remedy for an inward wound," despite of nitrate—may his shade pardon us! of oxide—of silver, the rebel organ still gives signs of turbulence in risings, such as may be heard, and seen, and felt in the general constitution. Dr. Placebo cannot hush them to quiet.

Surely there must be something radically wrong in the feeding system pursued by this modern world of fashion. Where is the man that can now be found who lives (as a sane man should live) in happy ignorance of the possession of his internal properties, excepting only what he knows of them through reasoning and dissection? Every soul one meets has some complaint to make against them. One is almost inclined to see truth in the reproachful boast cast by the elderly three-bottle gentleman at the rising generation: "The stomach is clean gone, Sir; there is no stomach now-a-days." And what, indeed, are we to think of the condition of the digestive powers of man, if we judge of it by the amount of high Medical skill which seems requisite to preserve them in any respectable degree of proper exercise? The supply—in a

free-trade country—of course indicates the demand, the terms being correlative; and here in a few years we have had before us the labours of Budd, of Chambers, of Handfield Jones, of Brinton, of Ballard, and of one knows not how many lesser lights. But all these are not enough to pacify the cravings of the morbid abdominal organs, and so now comes Dr. Habershon to aid in the good work. What a cruel paradox it seems, that a man should be told "his stomach is gone," when he first begins to gain unmistakeable proofs of its presence within him!

Some, perhaps, will hint that digestion (like disease) has changed its type; but we think it may be as simple to say that the subject of digestion has changed his mode of living. Pepsia and Dyspepsia are now, we may suppose, just what they were 2000 years ago, for anything that appears to the contrary. Our noble ancestors—the Briton and the Painted Pict—ate their acorns in peace; and Cæsar does not say that he found them suffering from indigestion; but yet the pampered Roman, in luxurious Rome, was not without his qualms of stomach at the time; oft had he occasion after his Apician feasts to envy the "dura messorum ilia," which he at other times derided. The stomachs of the nations were alike; their method of life was different; and so their digestion and their diseases.

But all this by the way; for our business now is with Dr. Habershon, and his work is not engaged with the mere functional disorders of the stomach. He takes us well through all the diseases structural and functional (as they are called) of the alimentary canal. He begins at the Pharynx, and carefully and honestly follows the tube through all its constrictions, dilatations, divarications and appendices. He tells us what misfortunes happen at every part of it; he describes the particular seat of the diseases at each conventional division of the apparatus; their anatomical characters (when they have any); their general pathology; the symptoms they excite; the conditions of the system with which they are coincident; the particular general disorder with which they are associated; and he also tells us what aids medicine offers man to help him through these numerous dangers and difficulties; and how those aids are to be wisely used to their ends. Dr. Habershon does not limit his attention to any one particular failing of any particular part.

The structural diseases of the canal naturally claim the most prominent attention: and really it is enough to make a man shudder, to think of the number of dangers which beset this part of him alone. Eleven morbid changes are written down as accidental contingencies met with in the pharynx and œsophagus. These are difficulties to be encountered even before the food gets into the stomach! Dysphagia may arise from disease of the tonsils or palate; from diffused inflammation of the cellular tissue of the pharynx or œsophagus; from disease of the laryngeal cartilages or epiglottis; from spasmodic stricture of these parts; from muscular paralysis; from acute inflammation of the mucous membrane; from mechanical injury or poisons; from constriction, ulceration, cancerous disease of the œsophagus: and from aneurismal pressure.

These diseased conditions are well detailed and illustrated by Dr. Habershon. "Paralysis of the muscles of deglutition," he observes, "is generally observed immediately to precede those (that?) of respiration, and is correctly looked upon as a common sign of approaching death;" placing food in the mouth under such circumstances "may hasten death." This fact should be more impressed upon the minds of sick-attendants than it seems to be. We have frequently had occasion to point out to the students in the dead-house, the presence of egg and brandy, wine, &c., in the large bronchial tubes.

In his third chapter, Dr. Habershon takes up the organic diseases of the stomach. He is evidently not quite at one with Dr. Handfield Jones respecting the atrophy and hypertrophy of its follicles and glands. He points out several sources of error into which the microscopical observer is very liable to fall on these points; and hints that some of Dr. Jones' opinions require confirmation. Several so-called morbid changes, Dr. Habershon tells us, may be manufactured artifically out of a healthy stomach by the mode of preparing the microscopic specimen; "This appearance of simple mammillation may be easily produced artificially in a healthy mucous membrane." Again, you may produce a disease by cutting your section in a wrong plane; "an oblique section may readily give the appearance of fibrous tissue abnormally developed, where such does not really exist."

We must not attempt to arbitrate between these gentlemen. They must settle their difference as they may; we only signalise the discrepancies as a warning to cultivators of the microscopic art, as a caution. Post-mortem solution also interferes sadly with pathological observations; it is surprising how many so-called diseases have been thereby produced; here also, therefore, let there be caution.

Minute cysts in the stomach, for example, turn out to be merely a "development of gas;" and the gelatinous softening of Andral and Cruveilhier is merely an after-death affair.

Fibroid degeneration of the pylorus Dr. Habershon does not consider to be cancerous; the symptoms closely resemble those of cancerous obstruction, and the patient dies, it is true, but cancer cells are wanting. Take heed yourself, here, Dr. Habershon! We have just met with a case of this fibroid degeneration of the pylorus, occurring without any marked symptom of obstruction during life, wherein after-death cancer-masses were found present in several of the other organs of the body. Was this mere coincidence?

Chapter IV. tells of the functional diseases of the stomach. Here is the Campus Martius, wherein quackery performs some of its grand evolutions. Impudent knavery, of course, struts ever boldly forward where honourable Medicine hesitates to move by reason of imperfect knowledge. The legitimate art itself, however, might perhaps be occasionally spared an error, if a clear comprehension were always had by the practitioner of the term *functional*. We unhesitatingly call those diseases organic where there exist visible tangible signs of a changed condition of parts; but is it not certain that there is also a changed condition of parts in functional diseases, the only difference being, that we cannot appreciate the change in the so-called *functional?* Vitality is concerned with diseased, equally as with healthy processes in the animal economy; in every healthy action there is involved an organic change, and in every unhealthy action there is equally involved an organic change.

Take any single sign of dyspepsia; run it well up to its origin, and it will be found of necessity to indicate organic change. And thus as Medicine sees clearer, the number of so-called functional disorders will diminish; we shall discover the causes which provoke them, and then ascribe them distinctly to their true origins. It is well, indeed, to remember that many, if not the greater number of the disorders which we please to call functional, turn out in the end to be the consequences of undeniable organic disease. Dr. Habershon himself tells us this. Most of the articles, in fact, which he includes under his head of functional disorders of the stomach are, correctly speaking, manifestly not such; and it is well that all of us should keep this fact clearly before us. Hæmatemesis, for instance, and impeded motion of the stomach, are positive organic disorders; pyrosis, again, if it be as Dr. H. Jones will have it, catarrh of the stomach, is assuredly no more a functional disorder than is bronchitis. *Caveat dyspepticus*—let him who has long laboured from indigestion doubt of the organic soundness of his vitals, and not lay the flattering unction of simple functional derangement to his soul!

But we must hurry on, and follow our author through the diseases of the many yards of canal which subtend the stomach, though we are not half way through this interesting volume, which we trust our readers will peruse for themselves. In this book will be found detailed by Dr. Habershon the good things which the labours of his predecessors above named have put to his hands, so far as they affect his particular subject; and, besides, much information which is not elsewhere to be had in an easily tangible form. The Practitioner will find it a very valuable work of reference. The division of diseases here made is necessarily in a considerable degree artificial, but so, until perfect light comes on us, must be all our nosological systems.

One last word to Dr. Habershon. Here and there in his work—not often—we have found some few things which Lindley Murray would kick at. We are sure that they will puzzle Dr. Habershon's foreign translator, and will disappear in his next edition. One specimen (page 105) *ex. gr.*—"Vomiting of blood is more frequently observed in ulceration of the stomach than in cancer, excepting the coffee-ground substance of the last stage, which arises from altered blood." We of course know what Dr. Habershon means

and so we do here (page 147) :—"This did not appear to be an affection in which much benefit could be obtained from the administration of mercury, but rather salines with sedatives;" but we think the way of putting the matter too elliptical for this fastidious age. Dr. Habershon will pardon us referring to these trivial and few blemishes to be found in his excellent work.

Guy's Hospital Reports. Edited by Samuel Wilks, M.D., *and* Alfred Poland. Third Series. Vol. III. London: 1857.

The present number of the Guy's Hospital Reports is replete with variety and interest. The articles are twenty in number, and most of them are founded upon the history of cases which have occurred in the Hospital.

The first article is a long and elaborate Report of Seventy-two Cases of Tetanus which have occurred in Guy's Hospital since the year 1825. These cases, which are necessarily incomplete in some respects, are tabulated into statistical forms, and the connexion of the disease with season, and with climate and prevailing winds, is set forth as accurately as possible. The statistical results in Guy's Hospital are compared with those obtained in India by Dr. Morehead and Mr. Peat, and with some obtained in Glasgow. The occurrence of tetanus after naval and military engagements is also noticed upon the authority of Larrey, who has given some valuable information upon this disease as it is met with in armies in the field. In turning to the records of the post-mortem examinations of persons who have died of tetanus, we have only to express our regret that the appearances observed after death are generally so unsatisfactory as to give us no insight into the morbid conditions which occasion this very formidable malady. In all the cases the brain and spinal cord were found healthy, with the exception of congestion in a few, and of some slight changes of colour in a few others. These results, although disappointing, are quite in accordance with general experience, and they prove that whatever may be the morbid state of the spinal cord in tetanus, the visible traces of diseased action are still to be discovered. The treatment of the disease is equally unsatisfactory with its pathology; in fact, the great majority of the cases were fatal; and in those which recovered it was impossible to assign the cure to any particular remedial agent. Mr. Poland, who has drawn up the Report, considers that the best plan of treatment is to strengthen the patient, and thus enable him to pass through the disease; but that nothing seems to check its course.

Among the other articles is one on Purpura, and its connexion with splenic disease, by Dr. Habershon, who relates fourteen cases, with the particulars of each; and in the fatal cases the examination of the spleen revealed in one a number of light-coloured masses, about the size of peas, which Dr. Habershon considers as the Malpighian bodies; and in another, numerous opaque white points, about the size of pins' heads, considered as diseased splenic cells. As most of the cases recovered, there was in them, of course, no distinct evidence of splenic disease, and the connexion of diseased states of this organ with purpura cannot yet be considered as fully established. Dr. Habershon also presents us with an anatomical description of a double fœtus, the dissected organs of which are figured in one of the accompanying plates. Mr. Cooper Forster relates some cases of tracheotomy for the removal of foreign bodies from the air-passages, two of the cases being successful, and one unsuccessful; and the same Surgeon gives some cases of Injuries to Veins, and of Extravasation of Urine in Children. Dr. Wilks makes some very valuable remarks upon some of the specimens of Diseases of the Bone contained in Guy's Museum, distinguishing the cases of Carcinoma of Bone from those of Osteo-Sarcoma and Myeloid Disease. This latter disease of the bones is very carefully described, and two plates are given, exhibiting the characters of myeloid disease as compared with osteoid cancer, carcinoma, and osteo-sarcoma.

We have only space to mention that the other papers consist of two articles on Ophthalmic subjects by Mr. France; of some cases of Idiopathic Fatty Degeneration by Dr. Wilks; on the causes of Death after Lithotomy by Mr. Bryant; some cases of Retention of the Menses by Dr. Oldham; some of disease of the Pulmonary Artery and its Valves by Dr. Whitley; on Abscess of the Brain, and a case of Paraplegia, by Dr. Gull; contributions to the practical Surgery of Cancer by Mr. Birkett; a description of some Wax Models in Guy's Museum, representing some forms of Roseola, by the Curator; a case in which a Urethro-Vesical Calculus was removed, by Mr. Poland; some notes on cases of Black Urinary Precipitate, by Dr. Hughes; the sequel of a case of successful Trephining of the Skull for rupture of the meningeal artery, by Mr. Cock. The operation was performed in September, 1841, and the patient died in September, 1856. The last papers in the series are two by Dr. Alfred Taylor; one on Poisoning by Tartarized Antimony, and the other on the detection of absorbed Strychnia and other Poisons. To the first of Dr. Taylor's papers we have already directed the attention of the Profession in our leading article the week before last.

The Anatomist's Vade Mecum; a System of Human Anatomy, By Erasmus Wilson, F.R.S. Seventh Edition. London, 1857. 8vo. Pp. 725.

The sale of fifteen thousand copies of a work of this kind is surely proof that it was wanted, and that it has supplied a want. It is only necessary to add, therefore, that the present edition has been revised and corrected throughout, that those parts relating to Histological Anatomy have been rewritten, and that many new woodcuts have been introduced.

Urinary Deposits, their Diagnosis, Pathology, and Therapeutical Indications. By Golding Bird, M.D., F.R.S. Fifth Edit. Edited by E. L. Birkett, M.D., F.R.C.P., &c. London: 1857. 8vo. Pp. 494.

This work of Dr. Golding Bird, the most simple and practically useful book on Urinary Deposits, has been edited with rare tact and discrimination by his friend, Dr. Birkett. New matter has been introduced in such a manner as to bring the work fully up to the present state of knowledge, while the lucidity and interest of the original text have been extremely well preserved.

Human Osteology. By Luther Holden, F.R.C.S. Second Edit. London: 1857. 8vo. Pp. 276.

This work comprises a description of the bones, with delineations of the attachments of the muscles; an account of the development of bone and of its general and microscopic structure; and a chapter on the unity of type in the vertebrate skeleton. It is illustrated by fifty-three lithographic engravings and fifty-seven woodcuts. The origins of the muscles are marked in red outlines and their insertions in blue. The work is so well known as a most useful aid to the student in learning the bones, that we need only remark that this edition is made more complete than the first, by the addition of the cartilages and muscles of the larynx and the anatomy of the internal ear.

PROGRESS OF MEDICAL SCIENCE.

Selections from Foreign Journals.

ON THE STRUCTURE OF THE NERVOUS CENTRES.

By Professor LENHOSSEK.

The following is a literal translation of an abstract of the paper furnished to the Académie des Sciences by M. Lenhossek, giving an account of his collection of anatomical preparations, made after the method of Mr. Lockhart Clarke, F.R.S., and with which, we understand, he has just arrived in London :—

"It results from my researches,—1. That the central nervous system is composed of grey substance, of white substance, and of an intermediate substance, termed the *gelatinous substance of Rolando*. 2. That the grey substance is formed of a general hyaline mass, having three kinds of nerve-cells :—(*a*) Nerve-cells with all their attributes, generally diffused; (*b*) Large nerve cells with all their attributes, united into groups. These are seen in the motor columns, in the sensitive columns, and elsewhere. (*c*) Capherical-nerve cells with all their attributes, filled with a deep brown pigment. These form only the ferruginous substance, and the black substance of Soemmering. 3. That the white substance is

formed of primary fibres, which terminate in the form of radiations in the different organs of the central nervous system. 4. That the so-called *gelatinous* substance is formed by the grey substance, which traverses, in the form of net-work, the bundles of the white substance. 5. That the grey substance has the following relations:—(*a*) In the spinal marrow it constitutes four columns, two anterior motor and two posterior sensitive, united together by the grey commissure: (*b*) In the *medulla oblongata* these four columns change their relative position, the anterior columns becoming internal, and the posterior external. They preserve this juxtaposition throughout the extent of the rhomboidal sinus. Farther on, the motor columns are continued alone to the bottom of the third ventricle, terminating in the infundibulum. The sensitive columns pass into the optic *thalami* and the *corpora striata*. (*c*) At the point where the juxtaposition of the four columns takes place, there the commissure disappears, and the median *cloison* of Vicq d'Azyr commences, this being formed by a prolongation of the grey substance. This *cloison* is continued through the entire length of the *pons varolii*. 6. That in the spinal marrow the white substance of the one side is completely separated from that of the opposite side by the anterior and posterior longitudinal groove; and in the *medulla oblongata* and *pons varolii* an analogous separation is produced by the *cloison* of Vicq d'Azyr. 7. That at the point where the juxtaposition of the four columns of the grey substance takes place, the white substance proceeds more and more forwards until the grey substance at last remains exposed in the rhomboidal sinus. 8. That the primary fibres of the roots of all the nerves arise in the grey substance. (*a*) In some cases these fibres proceed from prolongations of the nerve-cells. (*b*) But, most commonly, they arise in groups, without its being possible to determine their origin. These fibrous groups traverse the white substance in different directions, in order to form the roots of the nerves at the surface. They never contribute to the development of the white substance, nor does the latter furnish any fibres for the roots of the spinal nerves. 9. That the motor roots of the spinal nerves, and of the motor cerebral nerves, such as the hypoglossal, the external and internal motors of the eye, the facial, the small portion of the *trigeminus*, and the common ocular motor, take their origin only in the motor columns. 10. That the sensitive roots of the spinal nerves, and of the sensitive cerebral nerves—as the auditory, the large portion of the *trigeminus*, the optic, and olfactory—proceed only from the sensitive columns. 11. That the roots of the mixed cerebral nerves, as the two superior roots of the accessory nerves of Willis, and the pneumo-gastric, arise in both the motor and sensitive columns. 12. That there are four kinds of crossings in the spinal marrow, *medulla oblongata*, and *pons varolii*. (*a*) In the spinal marrow, the primary fibres of the motor roots cross in front of the central canal, and the fibres of the sensitive roots cross behind it. These intra-crossings are produced by a portion of the primary fibres of the roots taking their origin in the opposite side. (*b*) In the *medulla oblongata* and *pons varolii*, the primary fibres of the roots of the cerebral motor nerves, and only the motor portion of the mixed cerebral nerves, intercross at the middle of the motor columns, for the same reason as in the spinal marrow. (*c*) In the *cloison* of Vieq d'Azyr there is an intercrossing from right to left of some of the fibres of the white substance of the *medulla oblongata*, and of the *pons varolii*. (*d*) There is a crossing of the six walls of the bundles of the white substance, and of the *medulla oblongata*, in front of the central canal, known under the name of the *pyramidal decussation*. 13. That the primary fibres of the roots of the nervous plexuses of the pia mater, as also those of all the roots of the accessory nerves of Willis (except the two superior roots), proceed from all the periphery of the grey substance. In the plexuses at the surface of the pia mater are found: (*a*) Nerve-cells interposed between the primary nervous fibres. (*b*) Nerve-cells in groups, suspended and floating at the external surface of the nerves of the pia mater. These latter are filled with pigment. 14. That the two olivary bodies are composed of two substances, an external, grey, having convolutions, and an internal, white. The white substance is formed by the irradiation of the primary fibres of the peduncles of these bodies, which take their origin in the motor columns, and by the transverse commissure which traverses the *cloison* of Vicq d'Azyr. 15. That the central canal of the spinal marrow runs along its entire length, and opens into the *calamus scriptorius*. The walls are formed internally by a covering of cylindrical epithelial cells, and externally by a layer of the longitudinal fibres of Clarke, which extend into the epithelial layer of the rhomboidal sinus. In the lumbar region a granular mass is interposed between this fibrillary layer and the epithelial cells. 16. That on each side of the central canal there is a large vein, which successively bifurcates in the region of the *medulla oblongata*, and in that of the medullary cone."—*Moniteur des Hôp.* No. 129.

[This paper was referred to the same commission that is charged to report upon Professor Jacubowitsch's Memoir in the Histology of the Nervous System, an analysis of which we recently furnished in this Journal.]

EXCERPTA MINORA.

Lichen Agrius.—M. Chausit observes that the great obstinacy of this affection seems to be due in certain cases to the locality upon which it appears. Thus, opposite the joints, the skin becomes congested and hypertrophied, and, no longer possessed of elasticity enough to follow the movements of the limb, it cracks and chaps in the interval of the articular folds. In such cases, which are always very obstinate, M. Chausit has derived great benefit from the following application:—Evaporate from four to eight parts of tincture of aloes until all the alcohol is dissipated, and then add thirty parts of glycerine. When this is applied it causes a pretty severe smarting, which soon goes off, and in from five to eight days both the chaps and the lichen are usually cured. When, however, the lichen depends upon a general cause, internal remedies will also be required for its definitive removal,—*Union Méd.*, 113.

Pediculi Pubis.—Dr. Hamal recommends the following treatment. After having thoroughly washed the parts covered with hair, first with soap and water, and then with clear water, and drying them, pour chloroform on drop by drop, and rub it in. Then cover the parts with a folded handkerchief for half an hour, when another washing with soap and water should be performed in order to detach the debris of the pediculi.—*Gaz. des Hôp.*, 108.

Bug and other Insect Poison.—M. Bourgeois recommends strongly for the destruction of bugs a strong decoction of equal parts of pyrethrum and quassia, which is to be applied with a brush. For the destruction of ants and caterpillars, equal parts of the same, in a state of fine powder, should be dashed over the objects to be preserved.—*Rev. Méd.*, Sept.

Collodion and Sublimate in Nævus Maternus.—Dr. Assandri relates a case in which the application of four parts of corrosive sublimate in thirty of collodion was attended with complete success, little or no pain occurring.—*Schmidt's Jahrb*, No. 8.

Eczema of the Face in Children.—Dr. Behrend recommends the following application for the crusts which frequently cover the face of children: cod-liver oil fifteen and bicarbonate of soda two parts.—*Bull. de Thérap.* Sept. p. 272.

New Remedy in Hemicrania.—Dr. Jung stated at the Berlin Society of Medicine, that in the neuralgic pains known by the term migraine, or hemicrania, and especially when the infra-orbital nerve is affected, he has found the aspiration of the following mixture an almost infallible remedy. Dissolve 4 grains of acetate of morphia in a few drops of acetic acid, and add ʒ1½ of laurel water and 10 drops of prussic acid. Of this mixture, 10 drops (or in very excitable persons 5) are to be mixed with an equal quantity of water, and strongly aspired by the nostril corresponding to the side of the pain, keeping the other closed. The relief is immediate; but the existence of a coryza is a contra-indication to the employment of the remedy.—*Bull. de Thérap.*, Sept., p. 286.

Repeated Induction of Anæsthesia.—A female patient of M. Gosselin, with syphilitic stricture of the urethra, suffered such intense pain during explorations that it became necessary to administer chloroform whenever these were made. During eight months these inhalations have been repeated more than a hundred times, and daily at the beginning of this period. In spite of this frequent resort to chloroform, the patient is just as sensible to its influence, and is sent to sleep as quickly as on the first day, and in two or three minutes the finger or other body can be passed into the rectum, and left there for several minutes. M. Gosselin employs the same means of administering it that he always does, namely, a piece of charpie placed in the hollow of a compress, preferring this to any form of apparatus.—*Gaz. des Hôp.* No. 98.

FOREIGN CORRESPONDENCE.

FRANCE.

[From our Paris Correspondent.]

PARIS, 11 October, 1857.

IN a paper presented to the *Académie des Sciences*, M. Tavignot proposes a new method for the operation of artificial pupil. At first an incision ought to be made in the cornea, near its circumference; then a canula introduced in the anterior chamber of the eye, and its interior extremity placed just on the part of the iris where the new pupil is to be made. This being done, a metallic wire heated to the degree of white heat is introduced in the canula, and pushed through the iris, and at once drawn out. Through the canula a little water must be injected in the new pupil, and then the canula be withdrawn, and the eyelids closed and covered with compresses constantly kept wet with cold water. The author says that the heated wire passes without resistance through the iris and the false membranes.

Professor Duméril, in a report to the same Academy, on a letter of M. Charles Laurent, announcing that in Greece hydrophobia is cured by a peculiar remedy, says that this pretended remedy is composed of a mixture of powders, some from an insect, the *Mylabris bimaculata*, and some from a plant, the *Cynanchum excelsum*, of the family of the Asclepiadeæ. He remarks that the action of these two kinds of powders is well known, and that there is nothing to be hoped from such substances in the treatment of hydrophobia.

M. Legrand du Saulle has sent to the same Academy an interesting case of cure of hystero-epilepsy. A young girl expelled several *larvæ* from her nose after having had for some time a persistent frontal cephalalgia. On the 25th of March, 1851, she had hystero-epileptiform convulsions, lasting several hours. A month after she was placed in the lunatic asylum of the Côte d'Or, as being epileptic and insane. A few days after she had forty-five fits, followed by maniacal agitation. Her cephalalgia was persisting, and, at times, she expelled *larvæ* from her nose. Thinking that they came from the frontal sinuses, the author ordered the patient to smoke small cigars containing arseniate of soda, and he succeeded in killing the larvæ by having the smoke passed through the nose and the sinuses. A few days after larvæ, without movements, were expelled, the cephalalgia ceased, and there were no more convulsions. On the 8th of November, 1851, the girl left the asylum in an excellent state of mind and body. She is now (October, 1857) in perfect health.

M. H. Bonnet read to the same Academy a paper to prove the correctness of the view of Professor Bernard on the glycogenic function of the liver. He admits the possibility of the transformation of certain fatty and albumenoid substances of the blood into sugar; but he says that this is the result of a peculiar chemical influence of certain re-agents, and that in circulating blood, where these re-agents are not present, nothing proves that there is such a transformation. He tries also to show that the glycogenic substance of the liver is not similar to dextrine, but to hydrated starch.

About two years ago Dr. Brown-Séquard published in the *Medical Times and Gazette* (Nov. 17, 1855), a paper, in which he gave the principal results of numerous experiments, showing that red blood, *i.e.* richly oxygenated blood, has the power of reproducing the vital properties of almost all the contractile and nervous tissues, when it is injected in the artery some time after these tissues have completely lost these properties. In another paper, read at the Académie des Sciences on the 19th instant by this physiologist, he relates new facts on this subject. It is well known, since the admirable experiments of Sir Astley Cooper, that animals die from asphyxia when circulation is stopped in their four encephalic arteries, and that if the circulation be quickly re-established the animals recover almost immediately. Dr. Brown-Séquard has ascertained that, if circulation takes place again a few minutes after the last respiratory movement, life does not re-appear; but if the lungs are insufflated, the apparently dead trunk revives, and becomes endowed with a very energetic reflex power; and that 5, 10, or 15, and in one case 17 minutes after the last respiration, in insufflated dogs, if circulation is re-established in the encephalon, the functions of the brain proper, and of the respiratory nervous centre re-appear, and the animal may be restored to full life. In heads separated from the body, injections of richly oxygenated blood may reproduce the actions of the brain proper and of the medulla oblongata many minutes (even 14 or 15) after decapitation. In a second part of his last paper, Dr. Brown-Séquard points out a radical difference between the two kinds of blood, the arterial and the venous, or rather the red and the black. He has ascertained by a great many experiments that red blood, *i.e.* blood charged with oxygen, whether arterial or venous, never has the power of stimulating or exciting any organ or tissue, while black blood, *i.e.* blood charged with carbonic acid, has the power of stimulation in a very high degree as regards the nervous centres, and in a lower degree as regards the sensitive and motor nerves, and the contractile tissues. On the contrary, the red blood has the power of regenerating the vital properties, while black blood is hardly able to maintain them at a low degree. Dr. Brown-Séquard calls attention to a peculiar mode of action of black blood, which consists in its producing intermittent or periodical effects, and sometimes perfectly rhythmical actions, even in the muscles of animal life. He finishes his paper by the indication of the danger of employing black blood in transfusion. He relates facts to prove that the blood of an animal acts as a poison when injected in the veins of an animal of another species, only when it is black and charged with carbonic acid. The blood of a rabbit may kill the same individual, as well as another animal of the same species, if it is injected black—whether defibrinated or not—in its veins; so it is for dogs, for cats, for birds; while on the contrary, richly oxygenated blood, whether venous or arterial, and defibrinated or not, and taken from birds, turtles, etc, may be, without any ill effect, injected in the veins of a mammal. The great danger of transfusion of blood, after the entrance of air in the veins and the coagulation of its fibrin, is, therefore, the employment of a liquid containing too much carbonic acid. This danger, and at the same time the danger of coagulation, may easily be avoided by employing whipped venous blood, which, during the operation of whipping, loses its coagulating principle, and much of its carbonic acid, and absorbs a good deal of oxygen.

A case of bronzed skin, with disease of the supra-renal capsules, has recently excited some interest here. M. Charcot, who had observed the patient, and who has made the autopsy, had conceived, from the examination of the capsules with the naked eye, that they were in a normal condition, and the case was presented to the Société de Biologie as one of those which are considered as being in opposition with the view of Dr. Addison. But after a more careful examination it has been found with the microscope that these glands were very much altered. This is an important case, because it throws aside, as having no decisive value, the cases of bronzed skin, in which the capsules, not having been examined with the microscope, have been declared normal.

At the last meeting of the Académie des Sciences, Professor Bernard presented a paper of M. Castorani on the *Arcus Senilis*, in which this oculist proposes new views on the formation of this alteration. He tries to prove:—1st. That it is the result of an imbibition of the secretions of the conjunctiva by the circumference of the cornea; 2nd. That it is an essential condition for this imbibition that the eyelids be kept in almost a permanent contact with the cornea; 3rd. That this imbibition is in an inverse ratio with the density of the cornea and that of the liquids absorbed. These views are grounded upon experiments on animals, and observation on man. They do not lead to any method of treatment.

PROVINCIAL CORRESPONDENCE.

IRELAND.

DUBLIN, November 4, 1857.

THE Session of 1857-8 was opened at the Carmichael School of Medicine on Monday, the 2nd of November, by Dr. Robert M'Donnell, in an extremely interesting sketch of the principal physiological discoveries of the last few years. The first subject touched upon was the great sugar question—the glycogenic function of the liver—with especial reference to

Bernard's views, and the probable effects of diet in the diabetic condition when existing as a disease. Dr. M'Donnell observed that though much practical result had not as yet arisen from these investigations, clinical observers had probably been put upon the true path to discover a sound and successful treatment of diabetes. Passing from this to the physiology of the spinal cord, the lecturer noticed the anatomical researches of Schroeder van der Kolk, as well as the physiological inquiries of Brown-Séquard, and Chauveau, remarking that, although there was not yet sufficient ground to believe in the identity of the electrical and nervous fluids, it could not be doubted that the strongest analogies existed between them, as was shown by the experiments of Matteuci on the limbs of frogs. In repeating these experiments, Dr. M'Donnell was so much struck with the delicacy of Matteuci's "galvanoscopie frog" as a means of detecting an electrieal shock, that he was led to make an interesting discovery in comparative physiology, viz., that the common actiniæ of our shores are electrical animals. Dr. M'Donnell then passed to the researches of Helmholtz on the adjusting power of the eye, and concluded by paying a tribute to the memory of Dr. Marshall Hall, and alluding to the recent important physiological investigations of that distinguished philosopher regarding artificial respiration.

On the same day, at noon, Mr. Sedgwick made the "Comparative Value of Educational Systems, as applied to the Special Study of Medicine," the subject of his inaugural discourse, introductory to the forty-seventh annual session of the Original School of Medicine, Peter-street. Having divided education into general or preliminary, and special or professional instruction, and shown the vast extent and importanee of the subjects comprised in the latter category, the lecturer entered into some details in reference to school economy, with a view to ascertain the educational organization which should best fulfil the manifold requirements of the student of medieine; and in doing so dwelt at considerable length on the great importance of the practical study of anatomy, the proper use of lectures, and the value of the true tutorial method, as distinguished from the condemnable grinding or cramming system. Mr. Sedgwick next proceeded to make some remarks upon the collegiate plan in connexion with Medical institutions, a system which he believed to be morally bad, in consequence of the tendency of the many to be corrupted by one evil-disposed person; and educationally worse, as it presses on the student the first incentive to idleness,—society. The learned lecturer concluded with an earnest appeal to the students to second by diligeuce and zeal the exertions of their teachers, to eonsider their interests to be identical, and to struggle faithfully, earnestly, and manfully for superiority. The lecture will, at the request of the pupils of the school, be published *in extenso*.

Professor Harrison opened the business of the session in the Medical School of Trinity College, on Monday, the 2nd of November, several distinguished members of the Profession, as well as some of the Fellows of the University being present. He first descanted upon the nature of medical seienee, its value and importance to mankind. He then passed to the subject of Life and Organization in the Vegetable and Animal Kingdom. He next deseribed the animal cell, and explained the several ehanges which lead to the full development of the future being. Lastly, he expatiated at some length on the differences between organic functions and the mental or intellectual powers of man.

The hundredth anniversary of the opening of the Dublin Lying-in Hospital, on its present site, falling within the present session, the master, Dr. M'Clintock, opened the winter eourse of theoretical and clinical instruction yesterday, with a more formal introductory discourse than is usually given in that institution. He commenced his lecture by showing the important position Midwifery now occupies in public estimation, compared with what it held previously to the last very few years, and especially alluded to the recognition of its claims by the different colleges and Medical boards, as a proof of the increasing importance of this "third estate of medicine." He gave an interesting sketch of the leading epochs in the history of the obstetric art since the close of the seventeenth century, from which period its rise may be dated. The next portion of his address was devoted to the consideration of the ethical rules which should guide the conduct of those practising midwifery, whether in hospital or in private. The concluding half of the lecture consisted of a brief sketch of the life of Dr. Bartholomew Mosse, the distinguished and philanthropic founder of the Hospital.

On the same day, at three o'clock, the third session of the School of Medicine, Cecilia-street, in connexion with the Catholic University of Ireland, was opened by Dr. Hayden, Dean of the Medical Faculty. Having taken a summary review of the principal phases through which medicine has passed since its emancipation from the mystic and the adoption of the rational system, the learned lecturer proceeded to point out what should constitute the preliminary and professional education of the Medical Student. In conclusion he announced that the university had reeently acquired by purchase, through the negotiation of Dr. Lyons with Dr. Lindwurm of Munich, one of the richest and most select Medical libraries in Europe, comprising upwards of 5000 volumes in the Greek, Latin, French, German, Dutch, Italian, and English languages. He also stated that the university, solicitous to watch over the interests and welfare of its alumni, had undertaken the expense of opening a board and lodging-house for Medieal Students, under the superintendence of a member of the faculty, and at a considerably reduced pension, and he combated the argument that the congregating of Students tended to evil and idleness; he thought that, on the contrary, the fear of removal would be a check upon any evil propensities, and that the force of example would prove a stimulus to diligence and industry.

Dr. J. A. Byrne has been elected Assistant-Resident-Physician to the Rotunda Lying-in Hospital; and Dr. Lyons and Mr. A. M'Donnell have been chosen respectively Physician and Surgeon to Jervis-street Hospital, in the room of Drs. Martin and Harrison, who have resigned.

GENERAL CORRESPONDENCE.

A CASE OF POISONING BY NITRE.

[To the Editor of the Medical Times and Gazette.]

Sir,—I shall be obliged if you will allow me to record the ease of a pauper, residing ten miles from my house, who had been persuaded by an old quackess to take nitre as an infallible cure for ascarides. She took about an ounce of it, dissolved in about two teacupsful of water, and drank it off, but immediately vomited (as she fancies) the whole of it. Enough, however, remained to produce most distressing symptoms.

When I saw her the day after, she was lying down on her back in a collapsed state, with her legs drawn up as in peritonitis. The surface of the body was pale, but warm and moist. There was constant vomiting, so that she was unable to take the least thing. The abdomen was swollen, but soft all over, and very tender to the touch. She lay quite unable to move for about a week, and then a dreadful diarrhœa took place, with awful griping, and bloody stools. Afterwards she recovered fast, but remained weakly for a considerable period. The treatment consisted chiefly of small opium pills, warm fomentations, and mucilaginous drinks.

I am, &c. D. D. Davies.

Lampeter, Cardiganshire.

ELECTIONS AT THE ROYAL ORTHOPÆDIC HOSPITAL.

To the Editor of the Medical Times and Gazette.

Sir,—I am sorry to have again to trouble you with reference to this matter, but in consequence of the letter in your last number, I feel eompelled to do so, that the Profession may be able to come to a correct conclusion thereon. I beg to say,

1. That the Committee of the Hospital decided in 1851, and again reeently, that there was no priority or seniority between the Assistant Surgeons, and if your readers will inquire at St. Thomas's and St. Mary's Hospitals they will find that a mere majority of votes has not been allowed to outweigh professional rank. After the election of three Assistant Surgeons to St. Mary's Hospital, it was decided that they should rank according to the date of their college diplomas, which resulted in the gentleman who had been elected by the majority of votes not being placed first on the list.

2. The conversation that took place as to Testimonials resulted in no agreement or understanding not to issue any, but

was merely a discussion as to the necessity and propriety of obtaining them; and we both considered that as we were the Assistant Surgeons, Testimonials would not be necessary.

3. The Committee were afterwards required to examine the qualifications of candidates, and I was informed by the Deputy Chairman and Secretary that Testimonials must be sent in. If none were required by the Committee, it is singular that your correspondent should have sent in his as he did.

4. The rule of the Hospital which prohibited canvassing until the vacancy should be declared, was sufficiently strict without any promise on my part not to canvass, and I never gave any.

5. If your correspondent states truly, it is rather strange, as the fact turns out to be, that votes and proxies were being solicited for him for nearly a fortnight, and his printed canvassing cards were flying about for days, before the vacancy was declared.

6. I need hardly point out to your readers that a *circular* does not begin, "My dear Madam."

I am, &c. WILLIAM ADAMS.

5, Henrietta-street, Cavendish-square.

[We trust that this discussion will end here, as we have now published two letters from each gentleman.—ED.]

POISONING BY TARTAR EMETIC.

[To the Editor of the Medical Times and Gazette.]

SIR,—The leading article in the *Medical Times and Gazette* of October 24, on the continuous administration of small doses of tartar emetic as a poison, illustrated by recent criminal trials, was read no doubt by many, as it was by myself, with much satisfaction, in the hope that those whose opportunities for the investigation of such subjects are extensive, may be stimulated to watch for, and attentively study any cases which may lead to more definite knowledge of a poison so imperfectly studied hitherto, if we may judge from the standard treatises on Toxicology, yet one which evidently should be without delay carefully studied, not only by the Chemist with a view to ascertain the surest and simplest tests for detecting the poison in the tissues, or in the contents of the bladder and intestinal canal after death, but also by the practical Physician, to detect its administration during life, to distinguish the effects of the drug from the symptoms of disease, and after death in like manner to distinguish between morbid appearances.

Is there any morbid appearance to be found after death positively distinctive as the effect of tartar emetic continuously administered in small doses for some time before death? The solution of this question is obviously of great importance.

In a clinical lecture, reported in the *Medical Times and Gazette*, June 16, 1855, Professor Trousseau, treating on the medicinal use of tartar emetic, recommends its administration in the form of pills, because he asserts, when given for several days in a fluid form it causes pustulation of the fauces, just as the ointment does on the skin, and that even in the form of pills continued too long it may cause pustulation in the intestinal canal—a special kind of enteritis. So says Professor Trousseau, *ex cathedrâ*, and he is a deservedly high authority—but is this observation of his confirmed? Its bearing on the question of slow poisoning by a drug so easily procured and administered is so important that I cannot refrain from troubling you with this letter, in order to elicit the experience of others on a point which, even in its bearing on medical practice, deserves attention. I am, &c.

October 31, 1857. INQUIRER.

MEDICAL ETHICS AND ABORTION.

(To the Editor of the Medical Times and Gazette.)

SIR,—A paragraph from a Correspondent in the last number of your Journal in reference to Medical Ethics has recalled to my mind a case of abortion of which I had charge a short time since; and as the case in question may be taken as a fair specimen of a number of cases of not infrequent occurrence, I believe you will confer a favour on a large class of your readers by giving insertion to the following brief sketch, and thus I hope eliciting some valuable information on an important and delicate subject.

In the discharge of the laborious duties of a large dispensary district, in a northern county of Ireland, I was summoned to attend a young unmarried woman, about 26 years of age, said to be suffering from severe pain in the abdomen. From a second messenger I learned that there existed profuse uterine hæmorrhage. Suspecting abortion, I endeavoured to ascertain whether such a supposition were likely to be true, but on this subject could obtain no satisfactory information. On visiting the patient a short time after, I found her in bed—considerable bleeding still going on from the uterus—occasional uterine contractions—marked prostration. The poor woman did not attempt to conceal from me the cause of her illness. She had been pregnant she suspected about three months. Twenty-four hours before my visit miscarriage had occurred—the fœtus alone being expelled, and the secundines remaining behind. The fœtus had been already buried in a neighbouring garden by her own hands. Immediately after the exertion and excitement necessary to accomplish her object, she was obliged to retire to bed, and the hœmorrhage soon after commenced. Under ordinary treatment the placenta was expelled, bleeding ceased, and she quite recovered.

It is with reference to the following considerations regarding this case that I have ventured to occupy so much of your valuable space. It is needless to say that such a case presents nothing remarkable in reference to diagnosis or treatment.

On the occasion of my first visit, after candidly making the admission above referred to, she entreated me not to reveal to her friends the true cause of her ailment. She had quite concealed from every one any knowledge of her pregnancy, and she begged and implored that I would not betray the confidence she had reposed in me. I made no promise on the subject, but having done what I considered necessary took a hurried departure, without waiting for the interrogatories with which I knew I should certainly be assailed. Neither did I subsequently reveal to her friends her real condition. I wish to ask, if it is altogether right or judicious in the Medical attendant to become the confidant of a woman under such circumstances, in regard to her *moral guilt?* I know I may be answered that I am to alleviate suffering irrespective of its cause. This is admitted, but the question I ask is quite distinct from this, as a little reflection will readily show—it is this, whether, in such a case, the secret should be revealed to the woman's relatives, or to some one relative on whom confidence could be placed. If we act differently, and if the discovery is at length made, the tongue of slander will hardly fail to attach complicity or something worse to the conduct of the Medical man, when he has but conscientiously performed a most unpleasing duty. Again, in such a case, we cannot be sure that there is not *criminality* involved. In the case to which I specially refer, the patient had previously procured some medicines from a quack doctoress, as she affirmed, "for the stomach"—the immediate effect of which was purging; but whether this was the cause of abortion, or whether the drugs were administered with criminal intent, I do not profess to determine.

I considered myself to occupy at the time an unpleasant position towards this woman and towards her friends; and for the future guidance and benefit of myself and other junior members of the Profession, I should feel very grateful for the advice of some gentleman of large experience on this subject.

I am, &c. M.D. HIBERNIENSIS.

Co. Derry, Nov. 2nd, 1857.

THE NATURAL METHOD OF TREATING ASPHYXIA.

[To the Editor of the Medical Times and Gazette.]

SIR,—With reference to the plan proposed by Dr. Marshall Hall for the excitation of delayed respiration in still-born infants, and the restoration of suspended animation from asphyxia, the principle involved is—the diminution of the capacity of the thorax by compression, and the expulsion of air from the lungs, or forced expiration, followed by the enlargement of the cavity of the chest by its spontaneous expansion, and consequent inspiration of air induced by the natural elasticity alone of the parietes. The Marshall Hall method has been found open to some objections. For instance—

1. Expiration is made to precede inspiration, whereas originally expiration is second in order and not the primary act. In still-born infants, whose lungs never have been inflated, forced expiration is of course in them at first impossible.

2. The expansion of the thorax, or inspiration, being dependent on little more than the elasticity of the tissues, it takes place feebly, inefficiently, and slowly, and, therefore, calls for some more active mechanical aid.

3. That it is scarcely possible to use the warm bath during the adoption of the postural method.

4. That the patient is liable to have the mouth and nose compressed, the face bruised, or the neck twisted, by turning the almost lifeless body on the chest fifteen times a minute for some hours.

5. That both sides of the chest are not equally inflated; one side only is used to any extent.

The method which I now venture to suggest to the Profession is an imitation of the natural process of respiration, and has been found in practice to answer perfectly.

The Principle.—Inspiration.—Forcible enlargement of the capacity of the chest producing a tendency to a vacuum, and consequently an inspiration of air into the lungs, induced by the constrained action of the muscles of ordinary and extraordinary inspiration upon the movable walls of the thorax.

Expiration.—Diminution of the capacity of the chest and expulsion of the air from the lungs, and consequently an expiration induced by compression.

Agents.—The arms are used by the operator as handles to open and close the chest.

The following measures are to be adopted :—The arms of the patient are to be drawn up above his head, and when inspiration is required are to be extended outwards, upwards, and backwards, in such a way as not only to raise the shoulders, clavicles, and scapulæ, but to put the muscles between the thorax and the arms, particularly the pectorals, powerfully on the stretch, and in this way to elevate the ribs to the extent known to take place in laborious respiration, when deep inspiration becomes unavoidable.

Expiration is produced by pressing the shoulders down upon the chest, and is assisted by the natural collapse of the ribs and their cartilages, together with the elasticity of the lung tissue.

Advantages of the natural method :—

1. Inspiration is the primary act.
2. Expansion of the thorax wholly under the control of the operator.
3. May be adopted when the patient is in the warm bath.
4. That the patient is not liable to be injured by the manipulation.
5. That both sides of the chest may be equally inflated.
6. Pure atmospheric air is inspired.
7. No apparatus required, and the method easy of adoption.
8. This process is entirely in harmony with that of Nature.

I am, &c.

Henry R. Silvester, B.A., M.D. Lond.

High-street, Clapham.

REPORTS OF SOCIETIES.

THE PATHOLOGICAL SOCIETY.

Tuesday, Nov. 3.

Dr. Watson, President, in the chair.

After some preliminary business, a report on Mr. Balding's case of

MALIGNANT (?) ULCER IN THE ŒSOPHAGUS,

by Dr. Wilks and Dr. Brinton was read. They had come to the conclusion that the ulcer was simple, there being no evidence whatever of malignant deposit. It appeared that an abscess had formed, and had opened into the œsophagus, and that the artery had been subsequently involved. Several similar specimens were in the Guy's Museum.

Mr. Flower stated, that at the time of the autopsy Mr. Sibley had carefully examined the specimen, and thought it epithelial cancer. There were certainly epithelial cells present at a considerable distance from the surface, and one or two bodies resembling nested cells.

Dr. Brinton suggested that the epithelial cells so found might have been carried into the cavity during deglutition.

Dr. Andrew Clark next read a very detailed report on Mr. Hutchinson's specimens of

CASTS FROM THE INTESTINE.

The conclusion come to by Dr. Wilks and himself was, that the tubular membranes were true casts of the large intestine. The connective matrix appeared to be albuminous rather than fibrinous, and they doubted whether, in a more strict sense of the word, they could be considered as products of inflammamation. The report was illustrated by a series of mounted preparations for the microscope, demonstrative of the peculiarities described.

Mr. Henry Thompson next showed an

UNUSUALLY LARGE URINARY CALCULUS.

A man, aged 46, had been for thirty-one years the subject of calculus, but had always refused to be sounded. The stone, when at length he allowed an examination, was deemed too large for removal, and palliative treatment only was adopted. He died, worn out, about ten months after he had first been seen by Mr. Thompson. The bladder was found completely filled by two calculi, which locked together, and formed, as it were, one. Together they weighed fifteen ounces, and were very hard and heavy. The bladder was not hypertrophied. The calculus was of mixed structure, consisting chiefly of phosphates and lithates.

Dr. Wilks next brought before the Society specimens from a case of

OSTEOID CANCER.

A lad had undergone amputation of the leg for osteoid cancer of the fibula, by Mr. Cock, in May last. The preparation was brought before the Society at the time by Mr. Cooper Forster. The tumour grew from the fibula, and consisted in part of myeloid, in part of cancer, and in part of osteoid structure. The lad remained well from May till August, when he became rather suddenly paraplegic. The disease, in the form of osteoid cancer, had returned in the spine and in the lungs. There were no deposits in the glands or in the stump. A few myeloid cells were found in the nodules in the lung.

Dr. Wilks also showed a specimen of

FIBROID TUMOUR OF THE LUNG.

A man, aged 40, had died with a large fungating tumour in the chest, growing from the root of the right lung. It was the size of a child's head. The interest of the case consisted in the fact that the tumour was fibro-cellular only, and contained no cancer elements. It also grew in a manner somewhat different from that usual to cancers. Instead of infiltrating into the lung-structure, it had pushed it aside. Dr. Wilks adverted to the circumstance that Surgeons had recognised the not infrequent occurrence of fibroid tumours, recurrent and otherwise, on the external parts of the body, but that very few observations had been made respecting such within the great cavities of the trunk. At the former session Mr. Hutchinson had brought forward an example of Recurrent Fibroid of the Uterus, and he believed that this was the first recorded instance of what on further search would probably be found not very infrequent. He believed that he had himself recently seen a uterine tumour of precisely similar nature to that described by Mr. Hutchinson.

Dr. Bristowe brought forward a specimen of

PLUGGING OF THE BASILAR ARTERY.

The man had had several apoplectic attacks, and finally died in one. The basilar artery and one internal carotid were found entirely blocked up by fibrinous deposit. The brain generally was much congested, and to the eye the half of the cerebellum opposite to the paralysed limbs appeared softened; but no difference in structure could be found by the microscope. In the basilar artery the plugging appeared to be of considerable standing.

Dr. Bristowe also exhibited a specimen of

RUPTURE OF THE BASILAR ARTERY.

A coalheaver, aged 60, suddenly fainted while at work, and was taken to St. Thomas's Hospital. He recovered shortly, and wished to go home, but was detained at the wish of the resident Medical officer. For two hours he seemed quite well, then passed off into sleep, and shortly after became comatose.

He died in a very short time after the coma set in. At the autopsy every organ was found healthy, excepting the contents of the cranium. The basilar artery was found ruptured, and on it were several aneurismal pouches. A large clot had been effused at the base of the brain.

Dr. Bristowe also showed a specimen of

DISEASED HEART.

The chief peculiarity consisted in the very unusual thickness of the walls of the right ventricle. It was at least half-an-inch thick. It was doubtful whether or not there had been a regurgitant diastolic murmur over the aortic valves during life. He had never seen the right ventricle so much hypertrophied.

Dr. Robert Taylor showed an eyeball in which had occurred

ADHESION OF RETINA TO A CICATRIX.

The subject of the case had lost his left eye early in life from a gunpowder explosion. After many years of immunity severe irritation in the other eye was set up apparently from sympathy. Dr. Taylor now removed the cornea of the lost eye, and allowed the globe to collapse. After healing was complete, however, the irritation in the other returned as severely as ever. The collapsed globe was now wholly removed. On examination of it the reason of the persistent irritation was fully explained, as the retina was found to have prolapsed, and become involved in the corneal cicatrix.

Dr. Murchison showed a specimen of

CANCER OF A SUPRA-RENAL CAPSULE.

The patient, an elderly woman, had died of cancer in various organs in King's College Hospital. Her skin was pale and sallow. At the autopsy the right supra-renal capsule was found four times its size by deposit of cancer. The other was healthy in size and shape, but its structure contained much fatty matter. Dr. Murchison adverted to a discussion which had recently taken place in Paris, respecting a case in which the existence of this fatty degeneration only was held to be sufficient to account for a bronzed condition of skin which had been present during life. He much doubted whether it was not exceedingly common, and thought it not sufficient to explain such a phenomenon.

With Dr. Murchison's permission the specimen was referred to the Standing Committee respecting Diseases of the Supra-Renal Capsules.

Mr. Spencer Wells exhibited a

MALIGNANT GLANDULAR TUMOUR OF THE MAMMA,

which was important, as it proved that a tumour which might be classed with the mammary gland tumour of Paget, and the hypertrophy of Lebert, a tumour usually regarded as innocent, might show its malignant tendency by being followed by secondary deposits. The patient was a married woman, 33 years of age. She had one child, 7 years old, and had had two miscarriages afterwards. When Mr. Wells first saw her in 1854, she had suffered for eighteen months from pain in the breast, which had commenced soon after a miscarriage. The breast was converted into a small, hard, moveable, uniform tumour, not very sensitive on pressure, but extremely painful. Treatment had proved useless, and Mr. Wells removed the breast at the earnest desire of the patient. The wound healed by the first intention, and the woman remained pretty well for six months. Then uterine symptoms came on, and lasted through the autumn of 1855. At the end of the year cough and debility came on, and subcutaneous tubercles began to appear thirteen months after the operation. There was also secondary lobular enlargement of the left breast. These increased, and a year and nine months after the operation the cicatrix began to ulcerate. She gradually declined in health, and died two years four and months after operation.

At the post-mortem examination nodular deposits were found in the subcutaneous cellular tissue; also in the lungs, liver, and ovaries, and between the arachnoid and dura mater. These secondary deposits, according to Dr. Aitken, who made a careful microscopical examination of them, "presented elements of a granular character, combined with minute cells, and sometimes fine filamentous tissue." Mr. Quekett made a careful examination of the primary tumour on the day it was removed. The gland substance had been converted into a uniform tumour. The epithelial cells lining the ducts and the sac-like dilatations at their extremities, were altered into every variety of form; they were granular, and very abundant, so that they distended the ducts, and burst them in some parts. There was not one of the characteristics of scirrhus on section. From this examination it was hoped that there would be no return of the disease, yet we had a secondary lobular enlargement of the left breast, the condition being similar to the right, although only a few lobules of the gland were involved, and the other secondary deposits clearly showing the malignant nature of the disease. Possibly some might regard the tumour as an epithelioma; but here, again, distant secondary deposits were very uncommon. Dr. Laurie, of Glasgow, who had recorded a similar case, looked upon the secondary deposits as analogous to those circumscribed abscesses which occasionally occur in degenerate epithelial disease by one form of putrid infection.

ROYAL SOCIETY.

Dr. Arthur Farre has communicated the following paper by Dr. Henry Oldham, on the

HISTORY OF TWO CASES OF HERNIA OF THE OVARIES,

IN ONE OF WHICH THERE WAS A PERIODICAL ENLARGEMENT OF ONE OR OTHER OF THESE ORGANS.

The two cases which I beg to present to the Royal Society, are examples of a rare conformation of the female sexual organs, in which the two ovaria have descended through the inguinal canals and have become permanently lodged in the upper part of the external labia; and in both of them the most careful and repeated physical examination has failed to detect either uterus or vagina. I should hardly, however, have ventured to bring them before the Society simply as examples of faulty conformation—because, although rare, yet they have been observed (a)—had not the first of the two cases presented the interesting physiological peculiarity of a spontaneous periodical increase of one or other of the ovaria, followed by its gradual reduction, thus supplying direct evidence of an ovarian menstrual act.

The subject of the first case applied to me in September 1851 for advice on account of never having menstruated. She was nineteen years of age, of a tall figure, symmetrical frame, well-expanded pelvis, and womanly aspect, bearing all the marks of a full completion of the physical changes of puberty; and her general health, though not robust, was fairly good. She was one of a family of five children, and her sisters had menstruated between fifteen and sixteen years of age. The principal point which was elicited from her history in connexion with her complaint was, that, eighteen months before, a swelling had somewhat suddenly appeared on the right side of the external organs, which had caused her some pain for a few days and had then disappeared. In four or five months a similar swelling again appeared, but was attended with so much suffering that a medical man was consulted, who took it for an abscess and ordered it to be poulticed. Again it passed away, again to recur at the end of two months; and so it had gone on at irregular intervals until the time of her seeing me, when the pain of a renewed attack of unusual severity had occasioned her some alarm. On examination, a swelling the size of a goose-egg was found to extend between the external abdominal ring and the centre of the labium on the right side, which was very tense and firm to the touch; and the cellular tissue, skin, and mucous membrane of the labium were œdematous and inflamed. It was painful, but by no means so painful as a labial abscess, which in its general aspect it resembled; and there was but little febrile disturbance. A more critical examination detected the presence of a solid body of an oval shape within the tissue of the labium, which proved to be the ovarium, whose enlargement had so compressed the surrounding tissues as to swell and inflame them. On the opposite side there was another oval body, the size of a walnut, which passed just beyond the outer ring, but readily slipped into the canal. This was the left ovary in a quiescent state. The external sexual parts were normally

(a) *Vide* Deneux, "Recherches sur la Hernie de l'Ovaire," 1813.

formed; but the ostium vaginæ was closed, a slight indentation in the median line alone marking its position. Frequent careful physical examinations failed to detect any trace of a vagina or uterus, and the conclusion arrived at was that these central pelvic organs had not been developed. The mammary glands were fully formed.

I have had repeated opportunities during the six years which have intervened since first the case came before me, of examining the organs both during the periods of ovarian excitement and during the intervals. For nearly two years, however, I completely lost sight of her, when I learned to my amazement, that in spite of my strong admonition both to her mother and herself that she should lead a single life, she had married. For some some time past I have seen her more frequently, and have watched the recurrence of the ovarian swellings.

For the first three years the right ovarium was exclusively enlarged, and the intervals were not so regularly marked, varying between three and six weeks; excepting for the first year, when they were much longer, occasionally extending to three months. For the last two years the left ovarium has been far more frequently affected, the right remaining quiescent; occasionally both are painful and tumid, but even then one more than the other. The intervals are now pretty regularly three weeks. The acute inflammatory symptoms which accompanied the onset of these swellings have long since ceased to recur, which is obviously due to the loose state of the tissues from repeated stretching, so that the swollen organ is no longer compressed.

The accession of a menstrual time is sometimes suddenly felt. She will go to bed well, and in the morning the ovary will be swollen: more commonly, however, it is very gradual, augmenting in volume for four days, then remaining stationary for three days, and then gradually declining; the whole process, before the ovary is reduced, generally lasting ten or twelve days. On separating the ovary, when at its height of swelling, from the tissues surrounding it, it appears scarcely, if at all, less than double its usual volume; its outline is clearly defined, and it is plain that the whole, and not merely a part of the organ is involved. There is no suffering worthy of notice during the time: the swelling is tender if pressed; and tender, too, in the act of sitting down or rising up; but she walks about as usual without distress, and there is but little lumbar or hypogastric pain. Neither are there any manifest sympathies excited, either of the mammary glands or other organs. Nor is there is any vicarious flux, either of blood or any secretion, with the exception of an excess of saliva, but this not in any large flow. The ovary alone appeared to be engaged in this periodical act, which it is not too much to suppose, in accordance with modern physiological views, would have been attended with a flux of blood, had not the organs which normally supply it been absent.

But while this may be said to represent the usual course of a period, yet the volume of the ovary, and the length of time it remains swollen, is subject to occasional variation; sometimes being much less tumid, and dying away in a shorter time.

The repeated attempts at sexual union have only had the effect of somewhat loosening the tissues around the vulva, but the vagina remains imperforate as before, and is beyond the reach of surgical remedy. It may be added, that the subject of this history recognises an increase of sexual feeling at and soon after the periods of enlargement of the ovary.

The second case was that of a young woman who had attained the age of twenty without having menstruated. She was a tall, strumous-looking person in weak health. There had not been any well-marked efforts at menstruation, but she had suffered slightly from lumbar pain. The mammæ were well developed. The pelvis was fairly formed. On examination I found the two ovaria just appearing beyond the external abdominal rings, and readily returning by pressure into their respective inguinal canals. They were of equal size and similar shape, being ovoid bodies about the size of small chestnuts. They were not tender when touched, although organically sensitive, and she had never experienced pain in them. The external sexual organs were somewhat less perfectly developed than usual; the vaginal orifice was closed, and no trace of a canal or uterus could be detected by exploration with a catheter in the bladder and the finger in the rectum. These organs, as in the former case, were absent. During the time I saw the patient, which was only for two months, the ovaria did not enlarge, although her general health improved.

WESTERN MEDICAL AND SURGICAL SOCIETY.

October 23, 1857.

Samuel A. Lane, Esq., President, in the Chair.

The first ordinary meeting of the Session was held this evening. After the transaction of the routine business Mr. Lane addressed the members upon the opening of the Session; and after a few general remarks, entered upon the subject of amputation at the knee-joint, leaving the articular surface entire, an operation which ought always to be adopted in those cases where the disease was confined to below the joint, in preference to the more common practice of removing the femur at its lower third. Mr. Lane stated that he had for the first time, in England, performed this operation about five weeks ago, and exhibited the subject to the members. It had been performed in Glasgow in 1847 once, and in the Crimea seven times, in three of which the patient recovered. It had been performed eighteen times in America with five deaths, and twenty-eight times on the continent with twelve deaths, giving a per-centage of thirty-one per cent. deaths, while that from amputation of the thigh was about forty-three and a half per cent.; hence the recommendation of the present plan. He described the operation, recommending a large anterior flap to be made in front of the joint down to the insertion of the ligamentum patella, which was to be turned up and the knife carried through the joint, and a small posterior flap to be then made, so that in healing it would draw the interior flap over the articular surface, the cicatrix being then behind the joint. The advantages of this plan were apparent in the decreased mortality, and in the after usefulness which would arise in the stump being capable of bearing the pressure of the body better than does the divided femur. Mr. Symes and Mr. Fergusson had recommended a similar operation, but it differed in the removal of the articular surface, and in the recommendation to make a large posterior flap, which was objectionable on account of the tissues of the calf being unaccustomed to pressure, and unfit for the proposed work. Mr. Lane then alluded to Dr. Fell's plan of treatment of cancer, and stigmatised it as a complete system of charlatanism. He stated that the use of chloride of zinc as an escharotic in such cases was not novel, nor was the mode in which he employed it by making incisions in the tumour and thrusting it into them, M. Giraud having done the same thing in those cases in which he had amputated the thigh by escharotics. He was surprised at the favour with which the Surgeons at the Middlesex Hospital had regarded the treatment of a disease, which was essentially a blood disease and only to be overcome by some general and specific treatment; Dr. Fell's idea of curing it by puccoon being visionary, unwarrantable, and a deceit upon the public mind.

OBITUARY.

MR. SAMUEL JOHN HIGHLEY, SENIOR.

It is with much regret that we announce the death of Mr. Samuel John Highley, senior, for many years Medical Publisher in Fleet-street, and Webb-street, Borough. From 1773 to 1803, the family were associated with the late Mr. John Murray, at 32, Fleet-street, in which house the first number of "The Quarterly Review" was published. In 1803, the partnership was dissolved, and Mr. Highley's father removed to 24, and afterwards to 174, Fleet-street. In 1831, Mr. J. Highley purchased the business at 32, Fleet-street, on the bankruptcy of Messrs. Underwood, who had succeeded Mr. Murray on his removal to Albemarle-street, in 1812. Mr. Highley was known to the older members of the Medical Profession as a man of great energy and integrity; but within

the last few years symptoms of softening of the brain presented themselves. He passed into a hypochondriacal state, and he almost systematically declined the offers of authors, labouring under an impression that no speculation would succeed. A few years later his son, who had not been brought up to the business, but had devoted himself to scientific pursuits, was called upon to take its management. He started *The Quarterly Journal of Microscopical Science* and *The Library of Science and Art*. This latter undertaking promised works of considerable value, but not proving so remunerative as he anticipated, he relinquished the business, and Mr. Churchill became its purchaser. Mr. Highley, senior, died on October 22, from gradual paralytic decay, after a lengthened period of suffering, and was buried at Brompton Cemetery on the Thursday following.

MEDICAL NEWS.

DEATHS.

JEFFREY.—On Wednesday week, at Harrogate, George Jeffrey, of Keelby, aged 67. L.R.C.S. Edin. 1820.

LORRAIN.—On 27th August last, at Hong-Kong, William B. Lorrain, M.D.

MANT.—On the 25th October, in London, Thomas Mant, M.D., late of Ipswich, aged 87.

PORTER.—September 17th, at Jubbulpore, Ridley Porter, Assistant-Surgeon of the Madras Army, son of the late Dr. Porter.

QUARANTINE AND YELLOW FEVER.—The news brought by the La Plata, which has just arrived with the West India mail is, that cholera was still raging fearfully in Central America, but that the West Indies, both on land and afloat, were free from cholera and yellow fever. The last season in the West Indies has been the sickliest known for twenty years past. It was universally believed that the mode and place of coaling the mail packets at St. Thomas contributed to the mortality. The coaling arrangements have now been altered. During a previous voyage of the La Plata, when the yellow fever was rife in the West Indies, Dr. Schuyler, the surgeon of that vessel, administered quinine every morning to each of the crew, and every one escaped disease. During the present voyage of the La Plata the same plan has been adopted, and with the like result. The superior coaling arrangements at St. Thomas, with the undoubted discovery by Dr. Schuyler of an efficient prophylactic for yellow fever, will, it is confidently believed, secure the health of the crews of the Royal Mail packets when that epidemic again visits the West India Islands.—*Daily News.*

LIEUT.-COLONEL JOHN NICHOLSON, of the 27th Regiment of Bengal Native Infantry, who is at present serving before Delhi in command of a brigade, and who has lately been rewarded with the Companionship of the Bath for his promptness in suppressing the mutiny at Sealkote, and for the effectual service which he subsequently rendered by his victory over the party sent out by the mutineers to intercept the siege guns on their way to Delhi, is a native of the north of Ireland. He is the eldest son of the late Dr. Alexander Nicholson, who owned a property in the county of Down, and practised for some years with success at Virgemount, county of Dublin.

THE MEDICAL BENEVOLENT FUND.—The following extracts from the appeal of Mr. Toynbee, the new treasurer of this fund, will, we trust, be responded to by our readers:—"No one can deny that, in spite of the aid presented by Life Assurance and other benevolent institutions, cases not unfrequently occur in which a Medical man, after having done his best, is struck down by ill health and poverty, or, dying, he leaves those most dear to him in this life penniless, as well as fatherless. For the relief of such cases, the Medical Benevolent Fund was established. Who can say that this object is not a truly noble and Christian one? Again, cases are constantly occurring in which a Medical man comes to ruin from sheer mental inability to support his family, or, from recklessness and want of thought, dies, leaving his widow and children penniless. For the relief of such cases, the Medical Benevolent Fund was established. As a proof that we ought to be supported, let me say that we relieved seventy-four cases last year; that our working expenses are almost too small to be noticed. As a proof of our being duly appreciated by some, our yearly income is, from subscriptions, £634; we pay from our funded property £286 a-year for our pensioners; we have six houses, comfortable homes, given us by Mr. Bailey, Surgeon, of Chippenham; we have just received an anonymous donation of 500 guineas, for the aid of urgent cases; and we have, by the kindness of Mr. Churchill, the use of a committee-room, free of expense. To show you how much may be done by those having the will to aid us, let me remind you that Mr. J. G. Leete, Surgeon, of Thrapstone, gave us, in 1851, the sum of £13 3s. 2d., collected by his own efforts, in shilling subscriptions, from Poor-law Medical officers. Surely not a word more is required than these—'To do more good, we want more money.'"

CONVERSAZIONE.—On Monday evening, the 26th ult., Mr. Martin, of Reigate, an old member of the profession, had the pleasure to entertain at the Bridge House Hotel nearly two hundred medical gentlemen, seniors and juniors, including a large proportion of students of the great Hospitals in the neighbourhood. The meeting was precisely of a social character. In such an assemblage of tho worthy and the good, as a "social congress," old friends cultivate and improve their mutual sentiments of personal regard and amicable relations; and gentlemen, if not previously acquainted, discover each other's congeniality and accordance of mind, and have the opportunity of commencing an agreeable acquaintance, perhaps leading to cordial and lasting friendships, who, but for such, or similar opportunities of approximation, might never know each other. In course of conversation on Tobacco smoking, differences of opinion arose, and led to the circulation of an appeal to students, from which we select the following extracts:—"My dear young Friends,—You may be assured, that smoking, although it may not immediately poison the smoker, yet it has a pernicious agency on the organs of digestion and assimilation—sends unhealthy blood to the brain, and its morbid influences pervade the system; inducing various forms of dyspepsia, and impairing the functions of the brain and spinal cord. Notwithstanding the argument, if it can be so called, as to the comparative injury of smoking in moderation, or in excess, a question of degree—why smoke at all? I affirm that no man is the wiser or the better for smoking, and no one has a right, in the indulgence of a low, selfish gratification, to defile the atmosphere which others breathe, and to whom the odour may be particularly offensive, as it is to myself. You may be assured, that your lady patients will not approve their medical attendants being smokers, and some will not tolerate the habit in their medical advisers. Moreover, it is inconsistent with all the characteristics of the Medical profession, which are those of elevation and high-mindedness. The habits, in fact, of the true Gentleman—unexceptionable morals, refined manners, with a well-furnished and an enlightened mind. I remain, gentlemen, your assured Friend and humble Servant, THOMAS MARTIN.—Reigate, 27th October, 1857."

DR. SIEGL, chief Physician to the Military Hospitals at Vienna, has arrived in Paris, charged with a medical mission. He has been authorized by the Minister of War to visit the Military Hospitals in France, and he has begun by minutely examining the hospital at Vincennes.

THE SANITARY COMMISSION ON THE SEAT OF WAR IN THE EAST.—A thick blue-book, of 300 pages, issued on Saturday, contains the report of the proceedings of the Sanitary Commission despatched by Lord Panmure to the seat of war in the East (1855-56). As the result of their whole experience the commissioners express their opinion that, inasmuch as the neglect of military *hygiène*, whether as regards the soldier personally or the sanitary state of camps, barracks, and hospitals, has hitherto, in all countries, climates, and seasons, been the cause of the largest amount of loss in armies, the whole subject demands in future a practical development commensurate with its importance to the public service. The appendix to the report contains papers on the topography and geology of the seat of war, and on cooking and clothing, with abstracts of diaries and journals from the pens of Dr. Milroy, Dr. Sutherland, Mr. Walling, Dr. Smart, and Messrs. Newlands, Freeney, and Aynsley. The more important portions of this report shall be laid before our readers.

THE WEATHER IN JULY, AUGUST, AND SEPTEMBER.—From Mr. Glaisher's account of the Meteorology of the late remarkable season it appears that the temperature of July, August, and September was considerably above the average of the same months in the last 86 years. Since the year 1771 the temperature of July has only been somewhat exceeded 13 times. Since 1771, a date as far back as trustworthy records extend, the temperature of the month has never been so high as it was in August last, and the temperature of the month of September was only exceeded six times. In one year only (1818) out of 86 years did the temperature exceed the temperature of the three summer months. July and August were less, September was more humid than usual. Little rain fell in July; the average amount fell in August; the rain-fall in September was above the average. As a general rule the temperature of a thermometer with its bulb on the grass falls in every month below the freezing point (32°); but it is a remarkable fact that at Greenwich the thermometer so placed never fell below 30 degrees in the last three months. The Register-General adds, "A summer of unusual warmth in our European climates not only promotes the growth of corn and wine, but is probably salutary to the human frame where the land is drained, decaying refuse is buried in the earth, and cleanliness is observed. But in England these conditions are not yet complied with; hence fever, ague, and diarrhœa have prevailed extensively in the last hot summer."

GLYCERINE IN PHTHISIS.—A writer in the *North West Medical and Surgical Journal* states that he has during the last two years employed glycerine, usually combined with iodine, and with sufficient morphia to allay cough and procure sleep, with more advantage than any other remedy. In the early stage he prescribes glycerine, ℥ij.; iod. pot. ʒj.; sulph. morph. gr. ij. A teaspoonful before each meal, and at bedtime. When the disease is more advanced, and is accompanied by much expectoration and emaciation, he gives a teaspoonful of the following every four or six hours: Glyc. ℥ij.; syr. of iod. of iron, ℥½; sulph. of morph. gr. ij.—*Boston Journal*, vol. lvi. p. 108.

VITAL STATISTICS OF LONDON.

Week ending Saturday, October 31, 1857.

BIRTHS.

Births of Boys, 921; Girls, 864; Total, 1785.

Average of 10 corresponding weeks, 1847-56, 1467·4.

DEATHS.

	Males.	Females.	Total.
Deaths during the week	531	516	1047
Average of the ten years 1847-56	..	..	1008
Average corrected to increased population	...	..	1109
Corrected average for corresponding week in ten years 1847-56	507·2	500·5	1007·7
Deaths of people above 90	1	3	4
Deaths in 13 General Hospitals	38	25	63

DEATHS IN SUB-DISTRICTS FROM EPIDEMICS.

	Population. 1851.	Measles.	Scarlatina	Hooping-Cough.	Diarrhœa.	Cholera.	Typhus.
West	376,427	3	10	3	1	..	7
North....	490,396	2	17	7	4	..	15
Central ..	393,256	1	8	6	8	..	10
East	485,522	4	10	7	5	1	15
South	616,635	1	8	12	13	2	9
Total..	2,362,236	11	53	35	31	3	56

DEATHS REGISTERED DURING THE WEEK.

Causes of Death.	In the Week ending Saturday, Oct. 31, 1857. Deaths of Persons. At all ages.	Under 20 Years of Age.	At 20 and under 40 Years of Age.	At 40 and under 60 Years of Age.	At 60 and under 80 Years of Age.	At 80 Years of Age and Upwards.	Averages of Temperature and Deaths in 10 Weeks.
Mean Temperature	Mean temp. 51°6						47°5
All Causes	1047	503	161	192	152	32	1007 7
Specified Causes	1039	503	160	192	152	32	1000·0
Diseases:—							
1. Zymotic Class	221	168	28	16	7	2	268·9
2. Dropsy, Cancer, and others of uncertain seat	58	4	9	27	16	2	44·2
3. Tubercular Class	173	65	66	35	7	..	167·4
4 Of Brain, Nerves, etc. ..	126	58	11	22	31	4	102·3
5. Of Heart, etc.	47	2	8	22	13	2	36·5
6. Of Respiratory Organs ..	199	117	6	31	34	2	161·9
7. Of Digestive Organs ..	55	18	7	18	12	..	56·2
8. Of Kidneys, etc.	13	..	3	6	4	..	10·7
9. Of Uterus; viz. — Puerperal Disease, etc. ..	17	..	11	3	3	..	9·4
10. Of Joints, Bones; viz.— Rheumatism, etc. ..	4	..	3	1	..	..	7·2
11. Of Skin, etc.	4	3	..	..	1	..	2·2
12. Malformations	4	3	1	..	..	..	4.2
13. Debility from Premature Birth, etc.	29	29	..	..	..	..	26·2
14. Atrophy	30	23	..	4	3	..	27·6
15. Age	35	..	..	..	16	19	36·9
16. Sudden	1	..	..	..	..	1	8·0
17. Violence, Privation, etc....	32	13	7	7	5	..	30.2
Causes not specified.. ..	8	..	1	..	..	..	7·7

METEOROLOGY.

From Observations at the Greenwich Observatory.

Mean height of barometer	29·774 in.
Mean temperature	51·6
Highest point of thermometer	64·0
Lowest point of thermometer	37·8
Mean dew-point temperature	49·0
General direction of wind	S.W.
Whole amount of rain in the week	0·06
Amount of horizontal movement of air in the week ...	530 miles.

BOOKS RECEIVED.

On the Transmission from Parent to Offspring of some forms of Disease. By J. Whitehead, M.D. Second Edition. London. 1857.

Tables for the Diagnosis of Diseases of the Brain. By J. Russell Reynolds, M.D. London. 1957.

Archives of Medicine. No. I. London. 1857.

The Chemistry of Wine. By G. J. Mulder. Edited by H. Bence Jones, M.D. F.R.S. London. 1857.

A Manual of Medical Diagnosis. By A. W. Barclay, M.D. London. 1857.

Relation Médico-Chirurgicale de la Campagne d'Orient. Par le Dr. G. Scrive. Paris. 1857.

Report of the Sanitary Condition of the City of London for 1856-7. By Henry Letheby, M.B. London. 1857.

A Sketch of the History and Progress of Medicine. By A T. H. Waters. Liverpool. 1857.

The Dublin Quarterly Journal of Medical Science. November, 1857.

An Introductory Address delivered in King's College, London, October 1, 1857. Also, an Inaugural Lecture on Materia Medica and Therapeutics By George Johnson, M.D., F.R.C.P. London. 1857.

Quarterly Report of the Medical Officer of Health for Shoreditch By Robert Barnes, M.D. London. 1857.

Tenth Report of St. Mark's Ophthalmic Hospital and Dispensary, Dublin, for Diseases of the Eye and Ear. 1855-56. Dublin. 1857.

The History of the Plague of Athens. Translated from Thucydides, with Remarks explanatory of its Pathology. By Charles Collier, M.D. London. 1857.

Report of an Operation for removing a Foreign Body from beneath the Heart. By E. S. Cooper, A.M. M.D. San Francisco. 1857.

The Rambles of a Naturalist on the Coasts of France, Spain, and Sicily. By A. De Quatrefages. Translated by E. C. Otter. London. 1857.

The Grasses of Great Britain. Illustrated by J. E. Sowerby. Described, with Observations on their Natural History and Uses. By Charles Johnson. Part II. London. 1857.

TO CORRESPONDENTS.

M. D.—The paper of Chcauveau and Faivre, on the Movements of the Heart, is in the *Gazette Médicale de Paris*, 1856, pp. 363, 406, 457, 569. M. Faivre has also published the application of his researches to pathology in the same volume, pp. 712, 726, 763.

Dr. Wilson.—An engraving of the microscopic appearances of bronzed skin will be found at page 8 of our last volume.

A Country Surgeon.—The occurrence of hæmorrhage in a woman who has ceased to menstruate is often one of the earliest signs of commencing cancer of the uterus.

Obstetricus.—A good representation of stenosis of the funis may be found in the last edition of Dr. Montgomery's Signs and Symptoms of Pregnancy.

Mr. Johnson.—One part of mastic dissolved in two parts of collodion is said to prove a good cement for stopping teeth. It is introduced on a small piece of cotton.

Dr. L.—A very full abstract of the discussion at the Paris Academy of Medicine, upon the treatment of Ovarian Cysts, was given in our last volume.

Dr. Muspratt on the Chemistry of Wine.

TO THE EDITOR OF THE MEDICAL TIMES AND GAZETTE.

Sir,—A most interesting work, and one long wanted, has just been issued—"The Chemistry of Wine," by the celebrated Professor Mulder, of Utrecht. He very justly remarks in his preface:—"And yet this treatise cannot claim to be called 'A Chemical Monograph on Wine;' first, because it does not treat of the preparation of wine; and, secondly, because there are in it far too many deficiencies, which, however, cannot immediately be supplied. A chemical monograph on wine is at present impossible; in any age a single life would be insufficient for such a work."

My object in now addressing you is to correct an error which seems to creep into every chemical book, *i. e.*, the quantity of spirit contained in sherry and port wine. In Brande's Manual, port and sherry are given as containing 24 or 25 per cent. of alcohol; and even in Mulder's work, only just published, I find at page 384 Amontillado sherry given as holding 20·5 per cent. of spirit. For several months, owing to the serious adulterations taking place in the liquor which Noah first prepared from the juice of the grape, my attention has been particularly directed to estimating the amount of fixed matters and alcohol in pure wines.

Messrs. Chillingworth and Son, of London, kindly supplied me with numerous samples—port, thirty-seven years, and Amontillado sherry upwards of forty years old. In none of the samples of port did I find more than 18 per cent. of alcohol, and in the sherries only 12 per cent. In the same page above referred to Mr. Witt states that port, vintage 1834, yielded 22·46 per cent. of spirit. This surely cannot be correct, for wine of that vintage from the above eminent firm gave me the following:—

	Centesimally.
Alcohol	18·970.
Fixed matter	5·978.

I only deem it right to point out these mistakes, so that they may either be corrected or refuted in a subsequent edition.

I am, &c. Sheridan Muspratt, F.R.S.
Professor of Chemistry.

Royal College of Chemistry, Liverpool,
October 28, 1857.

A Constant Reader.—Reinsch's test is easy of application, and its theoretical explanation is very simple. The tissues supposed to contain arsenic or antimony are boiled in water, and the liquid is filtered. The clear liquid is then boiled for a short time with some copper turnings or with a piece of copper gauze, with the addition of a little hydrochloric acid; when, if arsenic or antimony be present, one or other of those metals will be deposited in the metallic state on the copper. The explanation is, that by the mutual action of oxide of antimony (or arsenious acid) hydrochloric acid and metallic copper, the hydrogen of the hydrochloric acid unites with the oxygen of the oxide of antimony (or of arsenic), while the chlorine of the hydrochloric acid unites with the copper and dissolves in the solution; the metallic antimony (or arsenic as the case may be) is thus set free, and is deposited in the metallic form upon some of the unchanged copper. Whether the deposit be antimony or arsenic must be determined by examining the respective characters of those metals; arsenic being more volatile than antimony; and arsenic forming with oxygen a compound (arsenious acid) which is soluble in hot water, while antimony forms with oxygen a compound (oxide of antimony) which is not soluble in water at all. Arsenious acid also forms, with hydrosulphuric acid, a lemon-yellow stain, while oxide of antimony with the same re-agent gives an orange-red one.

Mr. H. Taylor.—Plates of the kind mentioned are constantly used by respectable dentists very successfully for rectifying irregular growth of teeth in children.

Truly Obliged.—We do not prescribe in these columns. Any medical man could give the information required.

F.R.C.P.—We have received a pamphlet containing an account of the latest experiments made on Alexis St. Martin. An abstract shall be given in an early number.

Larynx.—We know of no special work on the management of the voice, but the common sense rule would be to keep exercise within the bounds of fatigue.

A Young Surgeon.—"During the past quarter," says the Registrar-General, "51,994 emigrants sailed from the ports of the United Kingdom at which there are Government emigration officers. Of this number 18,725 were ascertained to be of English origin; and, allowing for a due share of the 5516 whose origin was not distinguished, the probable number of English emigrants may be set down at 20,947. 10,197 of the number sailed to the United States, 1707 to our healthy North-American colonies, 8947 to the Australian colonies, and 96 to other places. The births were 161,215, the deaths 100,590; consequently, the recorded natural increase of population in England and Wales is expressed by 60,625. The natural increase of population in the United Kingdom was probably about 1000 daily.

Medicus.—The questions are put to all the candidates, who are not supposed to have any previous knowledge of the precise nature of the questions.

Dr. Silvester's note shall appear next week.

A Correspondent who wrote requesting information respecting *ad eundem* admissions to the College of Surgeons, can obtain a copy of the bye-laws and resolutions of Council by application to the Secretary, Mr. Balfour.

Professor Syme's letter on Amputations at the Ankle-joint is unavoidably delayed.

COMMUNICATIONS have been received from—

Professor Syme; Dr. G. Johnson; Dr. Wilks; Dr. Hillier; Mr. Roberts; Mr. Martin; Mr. Gamgee; Dr. Bader; Dr. Barnes; Dr. Prance; Mr. Foster; Mr. H. Taylor; Mr. W. Baines; Mr. D. Davies; Mr. Greenwood; Mr. Sansom; Mr. Whiting; Mr. Hatfield; Mr. Highley; Mr. W. Anderson; Mr. S. Cusack; Alpha; Mr. Hamlin; Dr. J. Green; Mr. J. Corney; Dr. Wildash; Dr. H. W. Watson; Mr. T. Carmody; Mr. B. Spurgin.

APPOINTMENTS FOR THE WEEK.

7. *Saturday* (*this day*).

Operations at St. Bartholomew's, 1½ p.m.; St. Thomas's, 1 p.m. King's, 2 p.m.; Charing Cross, 1 p.m.

Medical Society of London, 8 p.m.: *General Meeting.*

Medical and Surgical Society of the British Army, 7½ p.m. A paper will be read on the Yellow Fever Epidemic in Jamaica, 1856.

9. *Monday.*

Operations at the Royal Free Hospital, 1 p.m.; Metropolitan Free Hospital, 2 p.m.; Orthopædic Hospital, 3 p.m.

10. *Tuesday.*

Operations at Guy's, 1 p.m.; Westminster, 2 p.m.

Royal Medical and Chirurgical Society, 8½ p.m.: Mr. Charles Moore: "Case of Arterio-Venous Aneurism." Dr. Murchison; "Case of Communication with the Stomach through the Abdominal Parietes."

11. *Wednesday.*

Operations at University College Hospital, 2 p.m.; St. Mary's, 1 p.m. Orthopædic Hospital, 3 p.m.

North London Medical Society, 8 p.m.: Dr. Reynolds: "Diagnosis and Treatment of Convulsions in Children."

12. *Thursday.*

Operations at St. George's, 1 p.m.; Middlesex, 12½ p.m.; Central London Ophthalmic, 1 p.m.; Loudon, 1½ p.m.

King's College Medical Society, London, 8 p.m: Mr. Harley will read a paper entitled, "Some Observations on Injuries to the Scalp and Head."

13. *Friday.*

Operations at the Moorfields Ophthalmic, 10 a.m.; Westminster Ophthalmic, 1½ p.m.; Great Northern, 2½ p.m.

EXPECTED OPERATIONS.

Westminster Hospital.—The following operations are expected at this Hospital on Tuesday next, at 2 o'clock:—

Chopart's operation by Mr. Holt.—Dilatation of two strictures of urethra. by Mr. Holt.—Fatty tumour over shoulder-joint, by Mr. Brooke.

French Human Osteology.—

First choice on the lowest possible terms. Comparative Osteology; Artificial Anatomy, Soft parts in Wax applied ou Natural Bones; Anatomy and Pathology in Wax; Anatomy in Papier Maché, with all movable pieces; Scientific Microscop'cal Preparations; Surgical Instruments from M. Charrière of Paris.

All those pieces are prepared in our Dissectiou-room of Paris, by scientific men, which enables us to supply the English Professorship with exact copies of all the pieces embellishing the Great Museum of Paris.

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6 and 8 oz., any shape, plain, or graduated ..	8	0	per gross.
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FREDERICK BIGG,
Actuary and Secretary to the Joint Offices.

October, 1857.

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efficacious preparation by
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OLEUM MORRHUÆ CUM QUINA.
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&c. &c. &c.
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Componnd Achromatic Students' Microscopes from	4	15	6
Do., do., with ¼- & 1-inch Object-glasses, in Mahogany Case	8	0	0
No. 2. Componnd Achromatic Microscope, with 2 Eye-pieces and Forceps	9	10	0
Ditto, with ¼- aud 1-inch Achromatic Object-glasses of large angular aperture, Polariscope, Condenser, Animalcule Cage, and Mahogany Cabinet	21	7	0
No. 1. Large size ditto, of very superior workmanship	18	18	0
Do., do., with 3 Object-glasscs, and apparatus very complete	42	0	0

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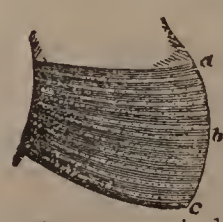

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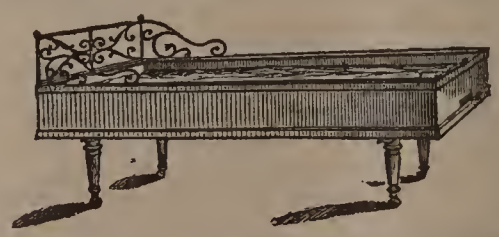

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ORIGINAL LECTURES.

LECTURE

ON

INCOMPLETE PARALYSIS OF THE LOWER EXTREMITIES,

CONNECTED WITH

DISEASE OF THE URINARY ORGANS,

DELIVERED AT THE

Grosvenor-Place School of Anatomy and Medicine.

WEDNESDAY, NOVEMBER 11, 1857,

By T. SPENCER WELLS, F.R.C.S.

Lecturer on Surgery at the School; Surgeon to the Samaritan Hospital, etc.

GENTLEMEN,—I wish to direct your attention to-day to a very important affection associated with disease of the urinary organs. I allude to an incomplete paralysis of the lower extremities—a form of incipient, or rather imperfect, paraplegia—which is by no means uncommon, and which I believe to be increasing very much, especially among the younger men of our day. I say I *believe* it to be increasing, but this is a point it would be very difficult to prove. There are many diseases which some believe to be more frequent now than heretofore, which are in all probability only more frequent because we have so lately learned to recognise them—such as pericarditis and endocarditis, Bright's disease, and pyæmia. Again, some men are apt to think a given disease on the increase because they happen to have a run of similar cases, either from pure accident, or from one patient introducing another. I have endeavoured to guard against these sources of fallacy. I have read a great deal that has been written on paraplegia, I have compared notes with many men in large practice, and I have come to the conclusion that the form of paraplegia I am about to describe is more common than it used to be, and that it is increasing among us.

My attention was first directed to this disease in 1845. Since then I have had eleven cases under treatment, and have seen occasionally about thirty others. Some of the latter were very probably ordinary cases of paraplegia depending upon softening, atrophy, or some other disease of the lower portion of the spinal cord. This disease will be fully described to you by my colleague who occupies the medical chair; but in the cases I allude to the paralysis is not dependent on spinal disease, and it is closely associated with diseases of the bladder, of the kidney, or of both. And here let me at once guard you against another source of fallacy. In all cases of paraplegia from injury or disease of the spine the bladder participates in the debility, and after a time it empties itself imperfectly—a little urine remains behind every time that urine is discharged—the mucous membrane of the bladder falls into a state of chronic irritation and viscid mucus or muco-purulent matter is thrown off from its surface. This acts as a ferment in the urine, leading to the decomposition of some of the urea it contains, and the evolution of carbonate of ammonia by the very simple chemical change I explained to you in a former lecture. Here the urinary disease is merely secondary. It is only one of the effects of spinal disease. In the cases I allude to the urinary affection is the first noticeable point of departure from the state of health. If not actually the primary disease, it by no means plays the secondary part of the urinary affection in ordinary cases of paraplegia.

When a patient comes to you with a tottering gait, complaining of weakness in the knees, a tendency to stumble in going up and down stairs or on any uneven ground, and a certain loss of that muscular sense which enables us to walk without watching the feet to know where to place them at every step, your first impression will be very naturally that you have to deal with a case of spinal disease. Your first impression may be correct. As you proceed with your examination of the case you may obtain evidence of some injury to the spine, some distortion of the bones, some displacement from caries of the bodies of the vertebræ or ulceration of the intervertebral cartilages, some point at which pressure or a sharp tap, or a hot sponge, causes pain—some history of inflammation of the cord—some indication of the pressure of a tumour, or of an aneurism on the cord—or possibly some proof that the disease is within the cranium. But you may find nothing of the kind. You have to exclude all these, and you are driven to assume a diseased condition of the lower portion of the cord, perhaps a simple atrophy, of the existence of which you have no other proof than the paraplegic symptoms I have just enumerated. Let me convince you then that you may have all these symptoms, that they may go on to complete paraplegia, and the patient may die, and that then you may find the cord perfectly healthy, so far as our examination can teach us, while the kidneys and bladder are the seat of manifest disease.

Rayer, in his great work on the diseases of the kidneys (vol. iii. p. 168) says, "The development of paralysis after diseases of the urinary passages is even now a fact unknown to a great many physicians"—I think the observation would apply to many English as well as French physicians, though Mr. Stanley published accounts of several cases of paralysis following nephritis so long ago as 1833, in the 18th vol. of the Medico-Chirurgical Transactions. His paper is entitled, "On Irritation of the Spinal Cord and its Nerves in connexion with Disease of the Kidneys." He narrates cases of disease in the kidneys existing in connexion with tenderness of the spine and paralysis of the lower limbs, which were, in consequence, treated as cases of disease in the fibro-cartilages and bodies of the vertebræ. I will read you four of these cases in Mr. Stanley's own words:

"The first of these cases to which my attention was directed, occurred in the year 1818, in a man admitted into St. Bartholomew's Hospital on account of paraplegia combined with retention of urine. Both sensation and the power of motion were entirely lost in the lower limbs. On examining the spine, tenderness on pressure was discovered at the third lumbar vertebra, which, viewed in connexion with the other symptoms, was considered to indicate the existence of disease in the vertebræ, and an issue was accordingly made in this part of the spine. Considerable amendment of the symptoms followed. Sensation and the power of motion were in a certain degree regained, and the retention became changed into incontinence of urine. Here the improvement ceased, the general health failed, and he gradually sunk.

"On a careful examination of the body, no disease could be discovered in the containing or contained parts of the vertebral column; the vertebræ, fibro-cartilages, spinal cord, and nerves were all perfectly sound, as were also the brain and its membranes. In one kidney were numerous small abscesses dispersed through its substance. The other kidney was gorged with blood, and its substance was much softer than natural. The mucous lining of the ureters and of the bladder was very vascular, and the muscular coat of the bladder was thickened.

"The next case occurred in 1821, in a man aged 35, admitted into the hospital on account of partial loss of the power of motion both in his upper and lower limbs, which had commenced about a month previously, and was supposed to originate in disease of the cervical vertebræ. He suffered besides from irritation in the bladder with occasional inability to expel the urine, which was mixed with some puriform fluid. In about six weeks from his admission, his health gradually declining, he died.

"On examining the body, both kidneys were found gorged with blood. In the substance of one kidney there were small depositions of pus. The muscular coat of the bladder was thickened, and its mucous coat very vascular. No morbid appearance was discovered in the brain or spinal cord. The vertebræ and their fibro-cartilages were perfectly healthy.

"For the particulars of the following case I am indebted to an intelligent friend, Mr. Henry Hunt, of Dartmouth.

"A gentleman, aged 28, fell upon his back and bruised it, from which, however, he recovered in a few days. Some weeks afterwards, when very hot from violent exercise, he was suddenly chilled by exposure to a current of cold air. During the following night he was seized with severe pain in his loins, which was to a certain extent relieved, and principally by abstracting blood from the part. With the continuance of pain in the back, he began to lose feeling and the power of motion in his lower limbs. The pain in the back was increased by pressure, but was not influenced by the application of a hot sponge. He gradually lost almost all

power of moving and feeling in his limbs, with the ability to retain his urine, and in this condition he died.

"On examination of the body, one kidney was found to consist of a mere sac distended with pus, and in the other kidney were several small abscesses. There was no disease in the spine or in any other part of the body.

"I next mention the brief particulars of a case which was furnished me by the late Mr. Horwood, of Gosport, whose life was destroyed by cholera whilst he was engaged in the zealous performance of his professional duties.

The patient having suffered a fall upon his back which was followed by paralysis of the lower limbs, his complaint was, in consequence, considered to be disease of the spine, and the appropriate treatment was adopted and continued to the time of his death.

"The appearances on dissection were, abscesses in both kidneys, thickening of the coats of the bladder with enlargement of the prostate gland. The thoracic and abdominal viscera were healthy. The brain and spinal cord were healthy excepting an unusual vascularity in the membranes of the latter below the first lumbar vertebra. There had not been the slightest suspicion of disease in the kidney, the pain in the back having been wholly referred to the disease which was supposed to exist in the spine."

It is very possible that in some of these cases the urinary disease was secondary, and that there may have been some unobserved softening of the spinal cord, but they nevertheless have great interest in connexion with this subject.

In a fifth case paralysis of the lower limbs, at first partial afterwards complete, loss of the expulsive power of the bladder, paralysis of the sphincter ani, severe pain at the fifth lumbar vertebræ and fever followed a severe gonorrhœa, and proved fatal in about a fortnight. Here no morbid appearance was found in any part of the spinal cord, while minute deposits of pus were found in the kidneys, and the mucous membrane of the bladder was very vascular and partly covered by coagulable lymph. In a sixth case a sudden attack of paraplegia followed a gonorrhœa, and the post-mortem appearances were very similar to the last case. Mr. Stanley then states that Mr. Hunt, of Dartmouth, had attended four cases of disease of the kidneys, in which the symptoms simulated those of inflammation of the vertebræ: and Mr. Hunt alludes to cases of disordered uterus, "combined with loss of power in the lower limbs in such a degree that the patients were wholly confined to their beds;" adding that "by the subsequent and perfect recovery of some of these patients it was clearly proved there had been no change of structure in the parts to which the symptoms referred, as the source of irritation." At some other time I may, perhaps, say more about paraplegia in women depending on uterine affection. At present I will only remark incidentally that such paralysis during pregnancy may be explained by pressure on the sacral plexus, while at other times after the blood has been drained from the body through the uterus it results from a deficient supply of blood to the cord. In some cases it has been observed after sudden suppression of the catamenial or lochial discharge; and it has been proved that then the cord and its membranes have been congested. But more frequently than all these, it may be only one of the manifestations of hysteria. I only allude to these cases now to show you that neither in the male nor in the female must you assume the existence of spinal disease from the mere occurrence of paraplegia.

In Cruveilhier's Pathological Anatomy you may find a full report of the case of Sanson, a celebrated French Surgeon. He died in 1841, after having suffered for more than a year from paraplegia. For several years before the attack of paraplegia he had suffered from enlarged prostate, difficulty in passing water, and then a calculus. Cruveilhier says, "M. Rayer and I could not misunderstand the importance of the coincidence of a disease of the urinary passages and the paraplegia, a coincidence to which Mr. Stanley was one of the first to direct especial attention." Chomel, Rayer, and Cruveilhier were present at the post-mortem. Extensive disease of the urinary organs was observed, but the vertebræ and spinal cord were perfectly healthy.

Lallemand, in his work on involuntary seminal emissions, has recorded many cases in which the patients were feeble or vacillating in their limbs, and afterwards subjects of incomplete paralysis of the lower extremities. I do not question for a moment that paraplegia is a common result of frequent seminal emissions, voluntary or involuntary; indeed, it is undeniable that the frequent agitation of the nervous system, so caused, does lead to chronic inflammation and softening of the cord, with paraplegia as a necessary consequence. But any one who will read Lallemand's cases carefully will see that, in several of them, the paralysis was consecutive, not to disease of the genital, but of the urinary organs, such as chronic affections of the prostate, and subsequent nephritis or pyelitis.

In Dr. Neligan's edition of Graves's Clinical Lectures you will find a case in which chronic gonorrhœa, exposure to cold, and drinking whiskey was followed by pain in the back, dysuria, and paraplegia. A stricture was found in the urethra, which was dilated; and Dr. Graves says, that a few days after the introduction of the first catheter power returned to the lower extremities in a remarkable manner. The patient left the Hospital in little more than a month, having recovered complete use of his limbs, and passing his water perfectly well.

Last year, Dr. Raoul Leroy d'Etiolles published a work on Paraplegia, in which he records a great number of cases he has collected in the Hospitals of Paris, or has observed in private practice, proving beyond dispute the very frequent occurrence of gonorrhœa, cystitis, enlargement of the prostate, retention of urine, and nephritis, as antecedents of paraplegia—a recovery of power in the limbs as the condition of the urinary organs improved—and in fatal cases, all the appearances of severe inflammation of these organs, while the brain, cord, and vertebræ were perfectly healthy. Many of his cases are extremely interesting; but time does not permit me to enter into their details. I trust, however, I have said enough to convince you that, while on the one hand disease of the urinary organs is constantly caused by paraplegia, so on the other paraplegia is frequently consecutive to disease of the urinary organs.

The next steps in the inquiry are, What is the nature of the urinary affection? and, How does it lead to paraplegia?

Now, in attempting to reply to the first question, I can say very little from my own observation, as I have not had an opportunity of making a post-mortem examination. But you will remember the state of the urinary organs described by Mr. Stanley in his cases. In these, and in many of the cases narrated by M. Leroy d'Etiolles, either one or both kidneys presented very evident signs of disease. In the acute cases there were all the marks of severe inflammation, with the formation of numerous small abscesses in the substance of the kidney. In more chronic cases the mucous membrane of the ureters, and of the pelvis and calices of the kidney, have been principally affected. It has been found soft and thick, coloured by injection in various degrees, and distended by purulent matter. The bladder has been found in every stage of disease, from simple injection of the mucous membrane to ulceration and perforation on the one hand, or hypertrophy and thickening on the other. The prostate has been found diseased very frequently, sometimes simply enlarged, and then the enlargement was mostly due to hypertrophy of one of the lateral lobes; or there has been that sort of transverse valve formed by the central portion, which we so frequently find as offering obstruction to the passage of a catheter. In some cases it was found full of pus, or small multiple abscesses were disseminated through its tissue. Sometimes the traces of an instrument which had traversed the gland were seen. Nothing very important was found in the urethra; but several patients had had strictures dilated during life.

Then, as to the next point. How can all this cause paraplegia? Here I must remind you of the anatomical connexions and physiological relations between the spinal cord and the great sympathetic nerve. You know that the vertebral portion of the sympathetic consists of a number of ganglia, united together by branches which pass from each ganglion to the one above and the one below it. There are twelve of these dorsal ganglia, four lumbar, and four or five sacral; and every one of them communicates with the corresponding spinal nerve. Some anatomists have even fancied that they have demonstrated the *origin* of the sympathetic to be in the spinal marrow. You know that the urinary organs are largely supplied with branches of the sympathetic. Here then is a direct path of nervous communication between the kidneys and bladder and the spinal cord. It is by this communication that the well known influence of the spinal

marrow upon the secretion of urine has been explained. Injuries of the vertebræ, concussions or compressions of the cord, and inflammation of the cord or its membranes, are all followed by the secretion of alkaline urine, or the development of ammonia in the bladder, while the bladder itself is more or less paralysed. The ready explanation has been that the sympathetic nerves supplying the kidneys and bladder did not receive their normal influence from the spinal cord through the spinal nerves. You may say we know all this, but what has it to do with the opposite action of the urinary organs upon the spinal marrow? Hear what Mr. Stanley said on this point before we heard much of Prochaska, Marshall Hall, and the reflex function of the cord.

"It might be thought improbable that irritation commencing in the kidney, or in the bladder, should be propagated through sentient nerves to the spinal cord, and that the impression should thence be transmitted through both the motive and sentient spinal nerves to the limbs, here occasioning an impairment both of sensation and of the power of motion. Some illustration of this subject seems to be furnished by the following researches of experimental physiology. If in an animal, 'a few seconds after it has been deprived of life, the spinal cord be then divided in the middle of the neck, and again in the middle of the back, upon irritating a sentient organ connected with either isolated segment, muscular action is produced, that is to say, a sentient organ is excited, and an irritation is propagated through the sentient nerve to the isolated segment of the spinal marrow where it gives rise to some change which is followed by an impulse along the voluntary nerves to the muscles of the part.'(a) In the instances which have been adduced, irritation commencing in the nerves of an internal organ, the kidney or bladder, has been transmitted through the spinal cord to the motive and sentient nerves of the limbs; but the same phenomena may occur in an opposite order, as in the case of a compound fracture or other severe injury of the lower extremity followed by retention of urine, from irritation arising in the anterior crural and ischiatic nerves, and communicated through the lumbar and sacral plexuses of spinal nerves to the nerves of the bladder."

When we obtain a more exact knowledge of the reciprocal influence exerted by the spinal cord and sympathetic ganglia upon each other; when we can determine what power the sympathetic receives from the cord, and what power it communicates to the cord, we may obtain more definite notions on these points. But I think what I have said is enough to show that if you disturb the normal condition of the sympathetic nerves supplying the kidneys and bladder, you need not be surprised at an alteration in the condition of the spinal nerves, with which the disordered sympathetic nerves communicate, or in the condition of the muscles which derive their motor power from the spinal nerves whose relations with the sympathetic have been disturbed.

But another explanation may be offered. I need hardly tell you that when you have disease of the kidneys, even if only their excretory functions be disordered, the nervous system may suffer in another way. The blood is not purified as it ought to be from the constituents the kidneys should remove from it, or it is modified by the removal of constituents the kidneys should not remove. In this case the nervous system suffers in common with the whole body, from the abnormal condition of the fluid on which its nutrition depends, and it occasionally suffers before other organs, or to a greater degree than they do. But I think we must have something more than this to connect urinary disease with paraplegia as cause and effect. You want to account for the lower extremities only—not the whole system—suffering, and you cannot do so very satisfactorily by chemical changes in the blood.

Then I should not omit to mention another reason for supposing that the sympathetic nerve plays an important part in this form of paraplegia. Gastric derangement is generally a very early symptom. Throughout the course of the disease it is usual to find a fissured, furred, slimy tongue; relaxed, turgid fauces; capricious appetite; alternations of want of appetite and voracity; thirst: a great tendency to eat fast, almost to *bolt* food; uneasiness, flatulence, and distension after eating; and constipation. These gastric symptoms are often far more troublesome to the patient than the weakness in his legs, or the bladder affection. Admitting the influence of the sympathetic, you can explain them readily enough by the intimate connexion of the renal and solar plexuses without bringing chemistry to your aid.

I am by no means certain that the gastric derangement is not occasionally the first departure from a state of health which is noticed. The Surgeon does not very often see these cases in their early stages, and when the patient comes to him he finds the disease has come on so gradually that no very accurate history of its commencement can be obtained. The usual history you get is somewhat as follows:—The patient at some period between the age of twenty and thirty-five finds that he does not pass his urine so easily as he used to do. He is longer about it. It requires some effort, and a few drops are apt to dribble away after he supposes that he has done. He sees the stream is not projected with such force as before, that it does not fall far from the penis. Perhaps he has had gonorrhœa once or several times, perhaps not. In either case he becomes uneasy, and consults a Surgeon, fancying perhaps that he has a stricture. A catheter is passed, and the urethra would be said by most men to be free. There is no stricture. The urine passes in a free jet through the catheter, showing that the bladder preserves its contractility. But a Surgeon who has been on the watch for these cases would probably find some slight obstacle at the prostate. For the most part, however, the patient is assured there is no stricture, and then on seeking for some cause to explain the urinary derangement, it is found that the stomach is out of order, and the patient is sent to one of the "stomach men." He goes through a course of dinner pills, bitters, acids, or alkalies, bismuth, creosote, or oxide of silver. He is kept on dry bread and mutton chops, or a milk diet, or a vegetable diet, or is fed on sausages and cheese, as the case may be. Still he gets no better, and he is sounded again. The urinary symptoms persist. Probably the urine is becoming a little turbid, and there is more frequent desire to pass it. Still there is no stricture, and the Surgeon recommends a holiday. The patient goes to the sea-side, or to some German bath, or perhaps tries the water cure. Very likely he improves for a time, and fancies himself almost well. He really *may* be well, and remain so, or he may again lead an irregular life, and then after some cold, or fatigue, or excess, finds himself as bad as ever. He or his friends have noticed that he is becoming "shaky." He tires soon. He becomes fretful and unhappy. Perhaps he fancies that his generative organs participate in the derangement or debility of the urinary organs. Then after a time the weakness of the lower limbs becomes apparent. His legs feel heavy to him. His feet are habitually cold and numb. His knees are apt to give way as he goes up or down stairs. He finds a stick or a friend's arm necessary in the streets. He is observed to walk awkwardly, the feet wide apart, the toes very much turned out, and there is no spring in the foot. It is lifted by the leg, as it were, and put down heavily—as the flexors seem to be weaker than the extensors. There is no loss of sensibility in the limb, so far as you can discover by pinching or pricking it, but there is a loss of muscular sense. The patient does not know where his feet or legs are unless he can see them. Perhaps there may be some shooting pains occasionally in the limb, which you may hear called neuralgic, or rheumatismal. They are sometimes as sudden as electric shocks.

As the disease goes on the urinary derangement increases, the abdominal muscles become weak and relaxed, the digestion is more impaired, flatulence becomes more troublesome, there is always constipation, and the sphincter ani becomes weak—not to such a degree as to cause incontinence of fæces, but an incontinence of flatus, which often worries such patients excessively, as you may readily imagine. On questioning them closely as to when they first noticed the weakness in the legs, you will scarcely ever get any satisfactory information. It came on so imperceptibly that it was impossible to fix a date. But they can all fix the period as long after the urinary and gastric derangement, perhaps one or two, perhaps three, four, or five years. One of my patients first noticed it when running a race with me. We were in the country, returning from a walk, and I proposed to run to the house. He laughed, and asked me if I knew that he was one of the fastest runners in England. However, we ran, not at all fast, and I kept up with him, and he has told me since that that was the first time it occurred to him that his legs were becoming

(a) Outlines of Human Physiology, by Herbert Mayo, edit. 3d, p. 231.

weak. This was three years after he had been examined for stricture, and had gone the usual round of dyspeptics.

As to the termination of this state of things I cannot tell you very much. I have never yet seen the end of a case, so I can say nothing as to the post-mortem appearances from my own observation, but I have told you before what others have found in cases somewhat similar. I have not seen a case further advanced than the condition I described just now. I could point out three or four now who have been in this condition, sometimes improving a little, sometimes declining again, for four or five years. I know others who have gradually regained their strength, and two especially who have married and have children. In one of these cases the paraplegia was so far advanced in 1845, that he could not walk without support. He used to be lifted on to a pony, and a friend walked beside him to support him. The urinary and generative organs were seriously affected; yet he was sufficiently recovered in 1849 to marry. A friend of mine attempted to commit suicide in 1847, from the distress of mind caused by his increasing debility; yet I met him lately walking briskly up St. James's-street, and he did his duty like a man against the Russians, both in the Baltic and the Black Sea.

Now, to be enabled to distinguish this form of paraplegia from that depending on spinal disease, you must remember the sort of history of the case as I have just described it, and compare this with the history of injury or disease of the vertebræ or intervertebral cartilages, or inflammation of the cord and its membranes, and bear in mind the following characteristics of the disease I wish you to recognise. They may also help you to make the more difficult diagnosis between this form of paraplegia and that depending on simple atrophy or softening of the lower portion of the cord.

1. Some impediment to the discharge of urine is one of the earliest symptoms.
2. This is closely connected with obstinate gastric derangement.
3. The weakness in the limbs is rather extreme debility than paralysis.
4. The tactile sensibility is slightly if at all impaired, but the muscular sense may be almost lost.
5. The limbs are tolerably well nourished. They may be thin, but there is no marked muscular atrophy, and their temperature is very little lowered.
6. The sphincter ani is not paralysed, though it may be weak.
7. The bladder preserves some degree of contractility.
8. There may be no pain in the back, and no pain on pressing the spinous processes or applying a hot sponge to them.
9. The degree of weakness in the limbs varies with the state of the urinary organs. Great amendment will sometimes rapidly follow catheterism and the removal of any obstruction to the free discharge of urine.
10. In the early stages of the disease there is no history of convulsions, cramps, spasms, formication, or violent neuralgic pains.

Now looking to disease of the urinary organs, in general terms, as the first sign of departure from the state of health, it may be as well to go a little further, and say that some impediment to the discharge of urine is the first thing to attract much attention, that this impediment is some engorgement or enlargement of the prostate, and that one or more attacks of gonorrhœa, or some sexual irregularity or excess, may often be made out as the causes of the prostatic disease. The impediment once established, it is easy to comprehend the occurrence of irritation of the bladder, and propagation of the irritation to the kidneys.

Then as to the causes of the supposed greater frequency just now of this form of paraplegia. The opponents of tobacco say that paraplegia is an effect of smoking in excess, and offer as a cause of the supposed increase of paralysis, an alleged increase in the use of tobacco. How much truth there may be in this I cannot say, but I would advise you always to insist upon paraplegic patients giving up smoking; not that I have seen any very marked ill effects from smoking in moderation, but that it is well to be on the safe side. It is so difficult to draw the line between moderation and excess, or to prevent moderation from running into excess, that total abstinence is the better course. I think, however, the harm smoking does is rather by putting the stomach out of order and keeping it so, than by any specific action on the nervous system. Occasionally you will find patients so miserable and irritable without tobacco, and so much soothed by it, that it would be absurd to adhere rigidly to the rule of abstinence.

Another explanation offered is the excessive use of cold water, which of late years has followed the introduction of hydropathy. And there may be something in this. The water cure is and has been practised by educated and judicious physicians, but it is and has been practised by ignorant and rash charlatans; and patients, thinking they cannot have too much of a good thing, have often done much more than they were told either by doctor or quack. I have seen several cases in which numbness of the lower part of the body and thighs, persisting for days or weeks, has followed prolonged sitz-baths, especially what is called the "flowing-sitz," in which a stream of cold water is made to flow round the buttocks and thighs of a patient sitting in it. It is well that you should bear this in mind, and, while using cold water to the extent of exciting reaction, and as long as it is followed by a healthy glow, to caution patients against it when they feel cold, or shivering, and their hands or feet are numb, which will happen to some people after even a simple sponging with cold water.

You will take into account, then, both tobacco and cold bathing as causes of paraplegia, but without attaching too much importance to them. I am disposed to attach much more importance to sexual irregularities—the occasional excess and occasional abstinence—which follow the state of celibacy, or the late marriages of the present day. The excessive luxury of our age brings its own punishment with it. If young ladies cannot wear a dress which costs less than twenty guineas; if they are not content with dressing *themselves*, but will insist in carrying about a preposterous cage of hoops and rings four times the size of the human figure, and covering this with silk at a guinea a-yard; if they will spend five or ten guineas on a bonnet which affords neither shelter nor warmth to the head, they cannot expect a moderate man to ruin himself with milliners' bills, and need not be surprised if he shrinks into his solitary bedroom, and lives at his club. If young gentlemen must spend thirty or forty pounds a-year in cigars; if they will drink claret and champagne; if they must have a "trap" or a hack at the very least; if a stall at the opera is indispensable, and the pocket not very deep, it is very clear that nothing is left for a wife and children. If parents of moderate means, who have brought up their children respectably, will not allow their daughters to marry a man who has to make his way in the world, but insist upon a house and servants and carriage, we need not be surprised at the number of old young ladies and old young men we meet with everywhere; and we need not be surprised at the physical evils which flow from such an unnatural state of society.

Lastly, as to the *treatment* of this disease. If you see a case in its very early stages, take care to remove any obstruction to the free discharge of urine. Use bougies until a full-sized instrument passes freely, and then endeavour to correct anything that may be acting injuriously upon the general health. Give such rules as to diet, exercise, residence, clothing, bathing, and change of air as will tend to restore any lost vigour. Attend carefully to the condition of the urine and regulate your medicinal treatment accordingly. Put your patient on his guard as to the possible progress or return of his disease, and you will not do your duty, as I believe, without advising him earnestly to marry.

When you have a more advanced case to deal with, the condition of the digestive organs will be a primary consideration. The tendency to constipation must be overcome, and I think a daily enema of warm water answers better than any dinner pill or aperient draught. If you do give pills avoid aloes, as they are apt to increase the urinary irritation, and saline purgatives for the same reason. Gregory's powder is as good an aperient as you can use. An elastic belt worn round the abdomen will tend to make up in some degree for the weakness of the abdominal muscles, and help to remove one of the causes of constipation. Then, as to the state of the stomach, I believe you will do more good by careful diet than by any medicine. I have seen every kind of remedy tried and very little good done by any. Lately two of my patients have taken pepsine, but without the slightest benefit. What really does good is a thorough change of life—a long sea voyage, mountain air, warm bathing, and a course of some one or two mineral waters.

The "grape cure," as it is called, I have known to prove very beneficial. At Meran in the Tyrol, and some other places, patients are kept while the grapes are ripe almost entirely

upon them and bread. A little weak broth and rice is also given, but bread and grapes are the staple articles of diet. You will see at once how likely so complete a change of food is to modify—and modify for the better—the condition of the digestive and urinary organs. Besides, the life in the open air, the quiet, and hope all act beneficially ; and I can strongly recommend six weeks of the grape cure in the autumn after a summer at some of the mineral waters and warm springs.

Take a case still more advanced. The feebleness of the limbs is extreme—the patient can walk a mile or two, perhaps, but the gait is tottering, the urine is loaded with mucus, or muco pus and the phosphates ; it soon becomes ammoniacal after it is passed, and there is frequent desire to pass it. Attending to what I have said as to the earlier stages, other things will suggest themselves now, such as strychnine, galvanism, opium, steel, cantharides, and the medicines which have a specific action on the mucous membrane of the bladder.

As to strychnine, I have seen it tried in small doses, and I have seen it carried on till its characteristic effects have been produced. I have seen it do harm, but I never saw it do any good whatever. Galvanism, or electro-magnetism on the contrary, I feel quite certain is of very great utility, but it must be used perseveringly. You may either send a pretty strong current through the weak muscles for a few minutes every day, or the patient may wear one of the little portable batteries sold by Mr. Meinig, with a pole fixed to each limb so as to keep up a constant mild current day and night. Opium is of great utility in relieving the general irritability, and the irritability of the bladder in particular. Iron may be useful as in ordinary cases of debility, but in the form of muriated tincture, and in combination with cantharides, it is sometimes followed by surprising good effects. In one case the good effect was so sudden and remarkable that I was almost led to accept the supposition of Dr. Seymour, that cantharides by its diuretic action tends to remove serum effused into the spinal cavity. In other cases I have seen the mixture of cantharides and iron tend to the restoration of great contractile power to the bladder, and relieve the frequent desire to pass water. I learnt the use of it accidently from witnessing the good effects of one of the "Balms" or "Elixirs" sold by those Pariahs of our profession, who fatten upon the fears they set up and the diseases their vile books create. The usual dose is fifteen minims of the muriated tincture of iron, and half-a-drachm of the tincture of cantharides, twice or three times a day.

As to the medicines which have an astringent action on the mucous membrane of the bladder—buchu, uva-ursi, chimaphila, and Pareira brava—they are to be looked on as mere palliatives, and the last is the only one I have much confidence in. It is very useful when there is great irritability of bladder, and a copious deposit of muco-purulent matter in the urine. You may give half a pint, or even a pint of the decoction daily, with opium or hyoscyamus if necessary. When the earthy phosphates are also deposited freely, you will find the diluted phosphoric acid very useful, and you may give this in half drachm doses in the decoction of Pareira. If the deposit is more of the mixed phosphates the benzoic acid answers better. A favourite draught of mine is five to ten grains of benzoic acid, and half an ounce of mucilage, in two or three ounces of the decoction of Pareira, with either twenty or thirty minims of tincture of hyoscyamus, or ten or fifteen of the solution of bimoconate of morphia. If the muco-purulent and phosphatic deposits increase to such a degree as to offer obstruction to the escape of urine, you should wash out the bladder every day with warm water. This gives great relief, and if the irritability of the bladder is excessive after you have washed it out, you should inject five minims of the diluted hydrocyanic acid of the Pharmacopœia in four ounces of warm water, and leave it in the bladder. The soothing effect of this is remarkable, and you may thus obtain several hours comfort for your patient even in the very worst cases.

You may remark that I have said nothing about the so-called nervine tonics, sulphate of zinc, oxide of silver, and so on. The reason is, that I have no faith in them. Your great object in these cases is to set the urinary organs to rights, to get the digestive organs into good order, and then to gain time for the restoration of the lost strength.

I shall only detain you a few minutes longer to add a word or two as to the mineral waters and warm springs which are likely to be most useful. A course of some aperient water as Ems or Carlsbad, should be taken first, and then a chalybeate should follow. The Schwalbach springs are very good ones, varying in strength, so that the patient can begin with, the weakest. Dr. Struve's imitations of all these waters are very good, and you may use them if the patient cannot go abroad. Of the warm springs for bathing those at Wildbad and at Gastein have the highest reputation. The water at both is simply warm distilled water, so far as chemistry can teach us, but the effects are certainly different from anything we see after warm baths in this climate. I passed three weeks at Gastein this autumn, and saw a great many paralytic cases there, and whether it is the mountain air, or the warm water, or whatever it may be that does good, the practical fact for you to know is that such cases do get better there, and get better in a very extraordinary manner, so that in obstinate cases you will be fully justified in urging your patients to pass a few weeks there.

ORIGINAL COMMUNICATIONS.

CASES OF DIAPHRAGMATIC PLEURISY.

REPORTED BY

WILLIAM H. STONE, M.B. Oxon., F.R.C.S., L.R.C.P.

Medical Registrar to St. Thomas's Hospital.

Three instances of this disease have occurred in Dr. Cursham's wards at the Brompton Hospital for Affections of the Chest. I am enabled, by his courtesy, to give such details of them as my office of Clinical Assistant at that Hospital enabled me to collect. They appear to present some points of interest, from the abnormal and deceptive symptoms by which they are often accompanied, and also from the difference of opinion which exists between former writers on this subject, a disagreement which Dr. Stokes explains on the ground that "on this subject additional facts are required."

Case 1.—William Driscoll, aged 21, tall, of spare habit, came into the Hospital on June 9th, 1857, with confirmed phthisical symptoms. He was not aware of any hereditary predisposition, and had always been a healthy man previously to this illness. He had been much exposed to wet and cold while following his trade of flower-hawking in the streets.

At Christmas time, 1856, he caught cold, and began to suffer from dry cough, with general febrile symptoms. Hæmoptysis had been limited to a slight streaking of the sputa two days before admission. It recurred while he was in the Hospital, again only to a slight extent. Emaciation had been rapid, constant, and considerable. Night-sweating had been profuse at first, but had much diminished latterly. The bowels were inclined to be costive; the appetite was good, the pulse quiet. He had suffered from occasional pleuritic stitches, but had never been laid up by them. On physical examination, much falling in was observed under both clavicles, with impairment of mobility, especially on the right side. In the same region there was dulness on the right side. The breathing was bronchial, the vocal resonance much increased, and some humid crackling sounds were audible. Posteriorly, in the right supra-scapular region, there was cavernous breathing and gurgling. On the left side breathing was feeble, both in the infra-clavicular and supra-scapular regions. He was put under the ordinary treatment, with cod-liver oil, mineral acids, and opiates to check the cough. For some weeks he made good progress. On July 4th he had gained in weight, and was able to walk about the grounds. The moist sounds had disappeared at the right apex, leaving the other signs unchanged. From this time he remained about stationary until the night of the 26th of July. He was then awakened suddenly by severe pain, referred to the scrobiculus cordis, accompanied by violent ineffectual vomiting, and great feeling of oppression. When seen early in the morning, the same symptoms continued. He was sitting propped up with pillows in the bed, stating that he could not lie down for pain, and that he was easiest when stooping forwards. The face was pale, and very anxious; the skin cool, and covered with perspiration. Pulse 100, very feeble; respiration quick, irregular, and so incomplete as to be uncountable. Vomiting was constant, with much hiccough, only bringing up mucus

tinged with bile. On a careful examination of the chest, no change could be detected in the physical signs, beyond slight tenderness on pressure about the base of the right lung. Percussion sounds were normal, and respiration audible to the lowest point.

The attack was noted on the card as probably one of diaphragmatic pleurisy of the right side. A large mustard poultice was applied; he was ordered effervescing medicine, with hydrocyanic acid and opiates. These means gave slight relief to the pain, but the vomiting persisted. Towards evening he became quieter; the stomach, however, would not bear the smallest quantity of food, and the epigastric pain returned in the act of vomiting, on deep inspiration, or on any rapid movement.

On the morning of the 28th he was much less depressed, the pain had abated; he had slept during the night, though still in a sitting posture. He had been able to take a little beef-tea on the previous afternoon, and some breakfast that morning, though the stomach was still irritable, and food had to be swallowed slowly.

On examining the chest, a marked change had taken place. Complete dulness commenced suddenly on the right side, at a line half-an-inch above the nipple. It extended over the whole lateral and posterior regions, and somewhat beyond the median line in front. The lower intercostal spaces were visibly bulged out. By measurement, the right side was found to be at its lower part $1\frac{1}{4}$ inch larger in circumference than the left. Over this space respiration was very feeble, and the voice had a distinct œgophonic twang.

From this date acute symptoms subsided. The effusion was lessened by iodine applications to the walls of the chest, and a more tonic course of treatment was resumed. The symptoms were subsequently those of a simple phthisical case, complicated by some pleurisy. He left the Hospital on August 14, with slight improvement of the general health, and no very marked advance in the pulmonary disease.

Case 2.—Elizabeth Elcock, aged 40, married; no children. Admitted July 17, 1857. She stated that one aunt had died of decline, but that she knew of no other hereditary predisposition. She had not been in strong health for some time, having suffered from old dyspeptic symptoms. The actual complaint dated eight months back. It began with severe sore throat, pain and tenderness over the larynx, pain and difficulty of swallowing, with general febrile symptoms.

Dysphagia had been considerable and increasing for five months, with consequent loss of flesh, there having been none before the occurrence of that symptom. Latterly she had been able to swallow only small quantities of milk and soaked bread. Cough had come on a few weeks before admission, and, even then, was very slight. The voice had been slightly altered, of high pitch, and difficult, for about a month.

Catamenia had been absent for seven months, previously having been scanty.

She had never had hæmoptysis, but epistaxis occasionally after coughing; had never suffered from night-sweating. Had never had rheumatic fever, though occasionally flying pains in the limbs. Denied syphilis.

On admission she was extremely emaciated; she complained of nothing but difficulty, almost amounting to inability to swallow, slight cough, and general weakness. She stated that her appetite was good, and that she always felt hungry.

The external appearance of the throat was slightly swollen and puffy. There was no sensible tumour or abnormal growth. The act of deglutition was natural, but the food returned almost immediately into the mouth. On examination with a bougie, the instrument was abruptly stopped at a point about the level of the cricoid cartilage. It could be felt externally on the left side of the neck, slightly below that spot. It could be passed farthest by directing it either to the extreme right or extreme left of the fauces. It could not be passed completely through the stricture, even when a No. 3 flexible catheter was used, without an exercise of force which was considered injudicious.

On physical examination of the chest, no abnormal condition whatever could be detected. The lungs were resonant throughout; the audible respiration feeble, but healthy. The heart was of normal size and impulse; the pulsations free from murmur.

The case was considered one of simple stricture of the œsophagus, and treated accordingly. Continued counter-irritation by means of iodine externally, with daily passage of a middle-sized flexible catheter into the œsophagus, produced rapid amendment. On the 10th of August she had increased considerably in weight, could swallow some meat, with abundance of slops and beef-tea.

On the 11th of August she was suddenly seized with new symptoms of a serious character. She complained of very intense pain, referred to the epigastric and umbilical regions. When seen, she was sitting up in bed, bent forward, and unable to lie down from increase of the pain. The breathing was short, incomplete, and irregular. She was retching frequently, but bringing up nothing beyond glairy mucus. Pulse 120, very feeble; skin moist; tongue red and rather raw; general appearance very anxious and depressed. On a careful examination of the chest, nothing abnormal could be detected in any part. The examination was made with the greater care, especially in the posterior regions, from a strong suspicion of some latent aneurismal or malignant cause to the various symptoms. The abdomen was much distended with flatus, but otherwise normal. The attack was at the moment considered to be of the nature of colic, and treated accordingly by opiates and antispasmodics. These means gave partial relief, though the pain continued on movement, and she could not lie down to sleep.

On the morning of the 12th there was not much pain, but great depression, and some dyspnœa. No abnormal signs, however, could be detected. During the next few days the pain gradually ceased, the vomiting diminished, and the dyspnœa was not remarkable. The depression continued to so great an extent, in spite of stimulants, as to render a repetition of the physical examination undesirable.

On the 20th violent diarrhœa set in, with difficulty checked by treatment. On the 27th she continued much the same, though much pulled down by the purging. She complained of no pain whatever. She lay on her back in the bed, in a posture of great prostration; the face was pinched and anxious; the pulse 110, very feeble; the tongue very red, dry, and chapped. The motions were excessively fetid, and of a dysenteric, mucous character.

On this day an examination of the chest was made, and showed an extended and complete dulness on the right side, reaching from the level of the nipple, and merging into the hepatic dulness. The liver itself was low in the abdomen. The intercostal spaces were not bulged out, and there was no appreciable enlargement of the side. Respiration was quite absent over the dull space. There was no œgophony, and an absence of vocal thrill. Superiorly, over the upper two-thirds of the right lung, respiration was feeble, but normal in character. This was the condition of the physical signs, throughout the remainder of the case.

The diarrhœa was partially, never completely, subdued; the tongue continued dry, red, and raw, deeply chapped; the breathing quiet and free from pain. There was little or no cough. The difficulty of swallowing was not great. She continued to take strong beef-tea, wine, and brandy, with ease; they were never vomited. There was, however, progressive exhaustion and emaciation until the end. On the 6th of September, suddenly at one p.m., she had a severe fit of coughing, and began to expectorate some solid looking, green, excessively fetid pus. There were about three ounces of this in all.

At 3 p.m. she died; apparently from simple exhaustion.

Post-mortem examination, thirty hours after death.—In the œsophagus, behind the lower edge of the cricoid cartilage, was a stricture. On the left side of the flattened tube a No. 4 catheter would pass; on the right side there was evidently some passage, though no instrument could be got through without violence. In the middle the way was blocked up. The walls of this part of the tube were hard and cartilaginous for about half an inch on either side of the stricture. They were not very much thickened, at the thickest part not measuring one-fifth of an inch across. There was no sort of tumour or adventitious product external to the tube itself. The œsophagus was pervious and normal in appearance all below into the stomach. The mucous membrane of the larynx was rather puffy and congested, but in other respects healthy. No traces of malignant disease could be detected in the indurated part under the microscope. The heart was of normal size; the aortic and pulmonary valves were not pervious to water. There was an atheromatous patch on the inner surface of the aorta, slightly involving two of the valves,

but apparently not so greatly as to interfere with their action. There were other patches lower down in the aorta. The auriculo-ventricular valves were healthy.

The right lung was not adherent to the walls of the chest in its upper two-thirds. The left lung was nowhere adherent. At the level of the nipple the lung was adherent to the thorax all round. Below this line was a large cavity with thick walls, containing a quart of grumous, excessively fetid pus. Its lower boundary was the diaphragm, pushed down into a concave form. In the median line it pushed the mediastinum slightly to the left. On its inner aspect it reached nearly up to the root of the lung. The walls were formed everywhere, with one exception, of thickened and pultaceous pleura. In one place, about the inner and lower angle, the pulmonary substance seemed laid bare, and there was a rough, ragged space the size of a crown piece. It is probable that the communication with the bronchial tubes took place in this spot, though the aperture could not be found, and was evidently small, from the small quantity of pus thus evacuated.

The right lung was somewhat compressed; though not so much as might have been expected; the enlargement appeared to have pressed downwards against the liver more than upwards. It was crepitant throughout. The large bronchi contained some purulent matter. The left lung was perfectly healthy. Neither lung contained any tubercle whatever. The mucous membrane of the stomach was much injected. That of the lower part of the ileum and of the large intestines were very considerably congested; but there was no ulceration at any spot. Liver, spleen, pancreas, kidneys and uterus all healthy. Brain not examined.

(To be continued.)

A CASE OF HEPATIC ABSCESS,

IN WHICH ADHESIONS HAVING FORMED BETWEEN THE LIVER AND ABDOMINAL PARIETES, THE TUMOUR BECAME PROMINENT, AND THE MATTER DISCHARGED BY AN EXTERNAL OPENING.—RECOVERY.

By THOMAS HORE GRAHAM, Esq. M.R.C.S.

S. W., aged 70, a tall and stout woman, had always enjoyed good health, with the exception of occasional bilious headaches. About six months before my first visit she first noticed a very small lump in the right side of her abdomen, which at times caused severe darting pains, accompanied with frequent retching and vomiting of clear water, great thirst, alternate flushings of heat and shivering, pain in the back of the head and legs, with lassitude and debility. Has never suffered from bilious fever, neither has she ever been abroad.

The symptoms just detailed continued more or less severe until the period of my being sent for to attend her, on the 25th of July, 1856, when she expressed herself very ill, and unable to get about any longer. Upon external examination I found in the right side of the abdomen (the integument of which, as well as the thorax, was jaundiced), a hard, circumscribed tumour, connected above with the liver, and extending below to within about two inches of the crest of the ilium, and in front as far as the umbilicus. There was little pain or tenderness on moderate pressure with the hand. She had been suffering for some days past from frequent shudderings, flushing of the face, great thirst, restlessness, depression of spirits, night perspirations; her hands and feet cold and clammy; pulse full, quick, 104; tongue white, and inclined to dryness; countenance anxious; complexion sallow; the eyes sunk in the orbits, and of a dirty yellow colour. The bowels very irregular, but more inclined to constipation; when otherwise, the motions were frequent, partly solid and partly liquid, and always white. She also complained of oppression over the præcordia, was considerably wasted, and had a loose cough.

With a view to promote suppuration, warm linseed-meal poultices were ordered to be kept applied over the tumour, with rest in bed, effervescing salines every four hours, and as the bowels had not been relieved for two days, a dose of the mistura sennæ comp. to be given directly, barley or toast and water as a drink to assuage the thirst.

July 26th.—Passed a restless night; the bowels have acted twice freely; the motions had the consistence of putty, and clay-coloured; the urine scanty and very high. There is at present no softness or feeling of fluctuation in the tumour. The thirst continues unabated. The linseed-meal poultices to be kept applied warm, and the effervescing salines every four hours.

27th.—A restless night, and complains this morning of pain and tenderness over the right hypochondrium. The tumour is increasing in size, extending to the left side and becoming pointed with shooting pains in it. Feels very low and desponding; says the thirst is her most distressing symptom. Pulse, 84, soft. Tongue is now moist and white. The jaundiced appearance over the abdomen and thorax is much deeper. To continue the poultices, omit the effervescing salines, and substitute the following mixture:—℞ Acidi nitrici dilut. ʒj.; syrupi simplicis, ʒss.; aquæ ad ʒvj.—M. Ft. mist. Cujus capt. coch, ij. magni omni tertiâ horâ.

From this time to August 3rd the tumour has increased in size, extending considerably over the left side, and for the first time its apex has become soft and elastic, with distinct fluctuation. The throbbing pains severe and frequent. Pulse 84, soft. The hands and feet continue cold and clammy; and this morning the patient has had a severe rigor, which lasted nearly an hour, and shortly afterwards a scanty griping motion from the bowels, consisting of blood and mucus. Since taking the last mixture the excessive thirst has been much relieved. I now suggested the propriety of opening the abscess, being quite satisfied that such a proceeding would not be premature, and to which assent was readily given. With a scalpel I made an incision full two inches and a half in length, carefully, over the soft portion of the tumour, and exposed the peritoneum; then with an abscess lancet I made an opening to the extent of the first incision, when exit was immediately given to a pint of thick flaky pus, mixed with bile, and very fœtid. The cavity being emptied as well as could be at the time, it was filled with lint, a compress of linen over the wound, and secured by the application of a broad bandage around the abdomen. The patient expressed herself greatly relieved and reduced already in size, and had kept up very well during the operation, but afterwards felt a slight faintness, which very shortly passed away after a little brandy had been given. Having waited an hour with the patient, I left the house, giving directions that she should have for the present arrow root with a little brandy every three or four hours, and that I should be sent for if any unfavourable change took place in her condition during the night.

August 4, 9 a.m.—Feels very low and poorly this morning, but has passed a comfortable night, although she has not slept much. There have been no night perspirations; tongue cleaning, and moist; pulse 80, soft; the jaundiced appearance of the skin is much diminished, as well as the size of the abdomen. The thirst is now very little, and since the operation she can turn and move in the bed better. Neither the bladder nor rectum have been relieved since yesterday. On the removal of the bandage, etc., which was completely saturated, about 12 ounces of a similar discharge as already stated, and still fœtid, poured freely from the external opening, which caused her to feel faint and sick: the repetition of a little brandy very shortly removed these unpleasant sensations. The cavity was then filled with lint, over which was placed a compress, and retained *in situ* by the application of a broad bandage. Her diet to consist of mutton-broth or beef-tea and arrow-root, with a little brandy occasionally. A dose of the compound senna mixture to be given in the afternoon. Shortly after my visit there was a copious relief of high-coloured urine from the bladder, and the bowels were moved twice by the aperient mixture during the night, the motions being of the same nature and appearance as the last.

For the first four days the discharge, which was still thick, flaky, bilious, and fœtid, caused a general feeling of weakness and sinking. In addition to the diet already ordered, two glasses of port-wine daily were added.

On the mornings of the fifth and sixth days I removed at each visit a hydatid, which, by filling up the external opening, had prevented the free discharge from the abscess. These hydatids were each about the size of an ordinary billiard ball, of hard consistence, and stained with bile externally, and, on being opened, were filled with a yellowish semi-gelatinous fluid. Their removal was followed by considerable relief to the patient.

From this time the discharge became gradually less; and, as the walls of the abscess diminished, the lint was reduced

in proportion. The compress and bandage was still continued. The jaundice has now disappeared. The patient expresses herself getting well very fast, her appetite is very keen, and she enjoys the wine. To have some meat daily. The bowels are regular; but there is still absence of bile in the motions. The urine is natural in appearance and quantity. The following mixture to be taken daily :—℞ Quinæ disulph. gr. vi.; acid. sulph. dilut. ʒss.; mist. camph. ad ʒvi.—Ft. mist. Capt. coch. ij. magna ter die.

The bowels were freely kept open by the mistura sennæ comp. and an occasional mercurial purge. She steadily improved under this treatment. There was still a slight discharge, tinged with bile, until October 10, 1856, when the wound closed. The abdomen had become quite soft, and she was enabled to get about the house. Is regaining her health very fast, and also her spirits. She was troubled during her recovery with frequent sloughing boils over her abdomen. After the external wound had closed, the stools commenced very gradually to alter their appearance; but it was not until the beginning of the present year that they became perfectly healthy. Her cough was at times very troublesome, and generally attended with a little muco-purulent expectoration.

March 2, 1857.—Still continues well and strong for her age. Her appetite very good, and sleeps well, and the bowels continue to act regularly, and healthy in their appearance.

EXCISION OF STRUMOUS ASTRAGALUS. COMPLETE RECOVERY.

By S. F. STATHAM.

Surgeon to the Great Northern Hospital.

R. J., aged 2 years, was brought as an out-patient on February 26, 1857, with weakness of left ankle, and a characteristic pallid, puffy swelling on the anterior and outer aspect of the joint. Constitutional and local remedies were employed with little effect; one point of integument ulcerated on the inner side, and caries of the astragalus was found on examination.

April 22.—Excision was performed by means of a single incision on the front of the ankle, outside the extensor tendons. The astragalus was so rotten that it had to be removed piecemeal; the neighbouring bones were sound. No accident occurred during or subsequently to the operation, excepting slight suppuration on the inner and posterior aspect of the joint.

November.—It has been entirely healed for a month, and for some three months he has made free use of the joint. He wears an iron up to the knee on the inner side of the ankle, to support it.

Remarks.—This is the fourth case in which I have removed the astragalus, twice by itself, twice with an inch of the bones of the leg. Three cases in children are quite recovered, with perfect use of fresh joints; one in an adult is firmly healed after sea-bathing.

The reviewer in the last number of the *British and Foreign Med.-Chir. Review* speaks of the difficulty of recognising these cases. I have never experienced this. The position of the primary strumous affection of the soft parts, and later the probe, have always proved to me unerring guides.

From what experience I have had, I most decidedly prefer excision of a bone to the use of the gouge, and think that the cases here cited support the preference most strongly. Indeed it seems to me impossible to use the gouge at all with safety on an astragalus, unless the ankle-joint is obliterated.

The histories of the other three cases are given almost completely in an appendix to "Resections in Gunshot Wounds, by Stromeyer and Esmarck, translated by S. F. Statham."

19, Manchester-street, Argyle-square,
Nov. 5, 1857.

THE COMMISSIONERS recently appointed by Royal warrant to inspect barracks and military hospitals for sanitary purposes were engaged in the inspection of St. George's and the other barracks in and near the metropolis during the past week.

THE LONDON

PRACTICE OF MEDICINE AND SURGERY.

SERIES OF CASES OF FRACTURE OF THE SKULL.

Concluded from page 475.

[We this week add the two following to the interesting examples of fracture of the skull published in our last Number. The reader will also find in our Correspondence, page 511, the details of one case to which we then only alluded.]

THE DREADNOUGHT SEAMEN'S HOSPITAL.

FRACTURE OF SKULL WITHOUT DEPRESSION—TREPHINING AND REMOVAL OF A LARGE COAGULUM—RECOVERY.

(Under the care of Mr. CROFT.)

THE following history of a case of extravasation of blood between the dura mater and the skull, in which trephining and removal of the extravasated blood was performed with most gratifying success, has been kindly supplied to us by Mr. Croft, the resident Surgical officer of the Dreadnought:—

Manuel Solana, aged 18, a sailor, on board the Peruvian man-of-war Amazonas, was admitted on September 18, at 1 a.m. in a state of profound insensibility, with stertorous, slow respiration, weak and frequent pulse, and cold extremities. The pupils were dilated, and equally large; the left eyelid slightly drooped. The left cheek puffed out with each expiration. The right arm and leg were paralysed. His bearers stated that the lad had fallen a height of seven feet, and struck the side of his head; that he became insensible; that he grew worse, until he passed into the urgent condition in which he was admitted. On examination of his head I found that the scalp was detached from the pericranium (without external lesion) and fascia covering the left temporal muscle. As I could not detect depressed bone, I proceeded under the impression that the symptoms were due to depression of the internal table of the bone, or from extravasated blood (the more probable of the two). In accordance with this view I made an exploratory dissection of the parts in the neighbourhood of the injury, and detecting no depressed bone, but a star-like fracture of the bones beneath the left temporal muscle, I proceeded to trephine. On removing the portion of bone, the edge of a large clot was exposed to view, and it was evident that the blood did not come from the middle meningeal artery, but from some branch in the dura mater in the frontal region. The clot was collecting between the dura mater and the bone, in front of the anterior lobe of the cerebrum, and had already attained the size of half a large orange. As I had not room to clear this clot away through the trephine opening (large as it was), or to reach the sources of hæmorrhage, I removed a piece of bone adjoining the first opening, by the same sized trephine; and then completely cleared away the clot of blood, and discovered the sources of hæmorrhage in two small arteries in the dura mater torn away from the bone. All having now been done that could be done, I applied a small pledget of lint to each bleeding orifice, and left the rest to nature. When the whole coagulum was removed a space was left by the effect of the compression over the anterior lobe of the brain, into which a half of a large orange might have been inserted. The dura mater was left unconfined. On touching the dura mater during the operation, the body was started into convulsive action. During the operation, which lasted about twenty minutes, the symptoms of the lad grew worse; he breathed only at intervals, and passed urine involuntarily. The pupils were at first greatly dilated, then the left contracted, but at the end both were again dilated. No immediate change followed the operation.

10 a.m.—Two hours after the operation. The extremities have become warm. The stertorous breathing has ceased, and respiration is as of one in a deep sleep. The left side of the face is more blank; but the right half of the body is recovering, and he begins to use the right arm and leg. Urine ejected in full stream involuntarily; pupils still dilated; pulse 114.

4 p.m.—He now hears his name when called, and gives signs by a grunt. Uses right side more freely; skin warm; pulse 114.

10 p.m.—In the same state. For the last hour or two muscular twitchings have occurred, but only very slightly. He has had no medicine to take, and has been allowed to suck ice. The wound has been kept moistened by cold water.

Sept. 19th.—Pulse is now 96; respiration slow and regular. He is more easily roused, but does not give attention to what is said. Pupils dilated. The right side has recovered to a great extent its paralysed state, but is not used so much as the left, and the sensation of foot and arm is blunted. Paralysis of the left third nerve exists, as there is complete ptosis and rolling of the eyeball outwards; and the right half of face is paralysed. The wound has been dressed with bread-poultice during the day.

20th.—The muscular twitchings have subsided; pulse at 97. Pupils dilated. Respiration regular and easy. Bowels have not been relieved of their contents since admission—although to-day two enemata of turpentine and castor oil have been administered. Bladder is kept empty by its own action. Wound appears favourable, and is suppurating with not too much action. The dura mater shows no inclination to slough and but slightly protrudes half through the trephine openings.

21st.—Towards the latter part of the day the pulse rose to 104, and became very feeble. Skin became hot. This state perhaps has been indueed by a dose ol. tiglii ♏. ij. at ten o'eloek a.m. Ordered to take during the day ʒiv of sherry wine in Oj of water for a drink, and have a blister applied to back of neck. In the evening the pulse rose to 120. No action from the bowels took place on this day,

22nd.—Has recovered himself. Is more sensible than ever before. Has held conversation with one of his countrymen, and expressed a desire to eat. Still gaining more power over the right leg and arm, but paralysis of the 3rd nerve and the right half of face still exists. Takes notice of people with right eye. The left pupil dilated and requiring powerful stimulus to make it contract. Pulse 104, regular; is always increased by sitting up in bed. Bowels have been relieved twice copiously. Wound progresses healthily, and there is no inclination to slough (on the part of the dura mater).

23rd.—Pulse is steady at 84. The symptoms are improving in all respects. He is now taking wine ʒviij, four ounces in the day and four in the night, and each four oz. with a pint of water, and as much beef-tea as he will take. Bowels have not acted since yesterday.

24th.—By some neglect on the part of the nurses he was deprived of the usual amount of stimulants, and fell into a condition in which the pulse was so feeble and quick that I could not count it, and the tongue was dry and brown.

25th.—With the assistance of ʒiv. of mist. vini gallici he is recovering.

26th.—Ordered, on account of constipation since the 22nd, ol. crotonis ♏ij. statim.

7 p.m.—No evacuation of bowels having taken place, ordered to take hydr. chlor. gr. v.; ol. crotonis ♏j. statim.

27th.—This morning the bowels have been opened freely twice. He seems debilitated, and has muscular twitchings and hot skin.

28th.—To-day, by way of experiment and to satisfy advisers, I ordered that hydr. c. cretâ should be given in one grain doses three times a day.

30th.—I cannot discover that any benefit has followed the use of mercury, but that the muscular twitchings and debilitated state in which he was left after the dose of calomel on the 26th still continue and rather increase. I have, therefore, ordered, that the opposite treatment be adopted, and a mixture of quinæ disulph. gr. j., zinci sulph. gr. j. be given twice a day for two days, and then continued three times a day. During the last seven days the wound and dura mater have progressed steadily towards a favourable condition. The dura mater first became covered with lymph, which is now developed into large healthy granulations. Bread poultices have been kept constantly applied, and a solution of arg. nitr. x. ad ʒj. syringed over the granulating surface every morning, so that no decomposing, irritating pus is left in contact with the wound.

Oct. 1.—Bowels acted readily under a dose of ol. crotonis ♏ij.

3rd.—Bowels acted spontaneously.

4th.—The lad called attention to his desire to relieve his bowels.

5th.—Since Sept. 30 the lad has steadily improved. Pulse has become steadier and slower. Sleeps regularly at night-time and soundly. Appetite is keen for solid food, (and which he frequently demands of bystanders.) Paralysis of left third nerve still, and the right side of the face; but the arm and leg of right side have completely recovered motion and sensibility. He continues to take quinæ disulph. and zinci sulph. aa. gr. j. ter die. The mist. vini gallici (three eggs to ʒiv. of brandy) during the twenty-four hours, and sherry, four ounces in the day and four ounces during the night = eight ounces. To-day ordered to eat fish, half a pound daily.

12th.—Progressing favourably. Ordered to leave off the mist. vini gallici and ʒiv of sherry, and to eat mutton diet. He is slowly recovering the use of the third nerve, or at least the left eyelid can now be slightly raised; but the ball of the eye is still turned outwards.

30th.—The wound is now cicatrizing, and no slough of the dura mater has taken place, and no hernia cerebri occurred.

The paralysis of the right side of the body is now recovered from. The tongue is protruded straight out, and not turned towards the left side as heretofore. But the cheek is not recovered, for when the patient laughs it moves only on the left side. He chews food well, and drinks without slobbering. The left eyelid is more raised, quite half way now, but paralysis of the third still exists, for the eyeball is always turned outwards. The bowels are opened regularly and voluntarily. The urine is also passed voluntarily. I cannot correctly judge of the condition of his mental faculties, for he cannot understand English. His fellow-countryman assures me that the lad is perfectly sane, and recollects all antecedent to the accident. He is now taking the tonic mixture still, but has left off all stimulants.

Nov. 3rd.—Is still improving in health, and I think that the third nerve is slowly recovering from its paralyzed state.

WESTMINSTER HOSPITAL.

Case 6.—FRACTURED SKULL, WITH DEPRESSION. RECOVERY WITHOUT OPERATION.

(Under the care of Mr. HOLTHOUSE.)

Rose Little, æt. 8, a thin, pale, and delicate-looking child, was brought to the Hospital October 6th, having been run over by a cab the day previous. The wheel had passed obliquely over the upper part of the right thigh and right side of the head, pressing in the temporal region of the latter, and producing a considerable concavity. There was some abrasion of the skin of the thigh, and some hæmorrhage from the vagina, but no head symptoms.

7th.—The depression of the skull has in great degree disappeared, the margin of the depressed portion being, however, distinctly perceptible.

19th.—Discharged well; not having had an untoward symptom since the accident.

Before leaving the Hospital a cast was taken of the head to show the depressed portion, but owing to the child's parents objecting to have the hair cut off, the depression is not so well marked as it otherwise would be, still it is very evident. The cast may be seen in the Museum of the Hospital.

ROYAL LONDON OPHTHALMIC HOSPITAL, MOORFIELDS.

REPORT OF THE OPERATIONS PERFORMED FROM THE 25th OF SEPTEMBER TO THE 25th OF OCTOBER, 1857.

Communicated by Dr. BADER, Curator.

1. *Lachrymal apparatus.*—The treatment for obstruction of the lachrymal sac by the actual cautery was applied in two cases; both were of three years' duration; in one the surface of the sac was covered by a thick layer of organized exudation. Usually several cauteries are required to touch the whole of the diseased surface.

Two of the former cases returned the tickets; in one there is no watering of the eyes whatever; in the other, when out

in the wind, the tears run over the cheeks. The duration of treatment of the one was six, of the other five weeks.

Laying open of the lower lachrymal puncta in four cases. This operation is extensively practised in the out-patients' room.

2. *Eyelids.*—Removal of small sebaceous tumours from beneath the skin of the upper lid in three cases.

In a case of Mr. Wordsworth the tumour was of the size of a hazle-nut, and its sac sufficiently transparent to show the sebaceous mass surrounded by dark hairs of the size of ordinary eyelashes. Two nævi of the lower lid in children; one touched with pure nitric acid, the other ligatured in the manner described in a former report.

Case of a fistulous opening in the skin opposite the middle of the upper orbital edge; the opening was enlarged by an incision; on probing its depth a great quantity of pus escaped, but no dead bone was discovered; a piece of lint was left in the wound and medical treatment continued.

Grooving of the fibro-cartilage of the upper lid in five cases. The operation tends to save the eyelashes besides curing the entropium; the skin incision was made about one line from and parallel to the whole palpebral edge; the base of the triangular piece which is grooved out of the fibro-cartilage is nearest the skin, and about one line broad, its apex towards the conjunctiva; many of the eyelashes have been cut across during the operations. To prevent the spasmodic contraction of the lids during the healing, the outer canthus has been divided in some cases. The operation, intended to supersede the entire removal of the eyelashes, has in several cases proved satisfactory, but its value requires more extensive testing.

Paring of the edges of a former incision, in a case of ectropium where a triangular piece had been removed out of the thickness of the upper lid; the wound had united, but on removing the needles, separated again. To prevent the tedious bleeding during operations on the eyelids, grooving of the fibro-cartilage, removal of tumours, &c., a useful kind of forceps is used; for its description and sketch, see the second edition of Desmarres, vol. i. p. 602.

3. *Muscles of the Eye-ball.*—Eighteen cases of internal strabismus operated on subconjunctivally.

The severe case of internal strabismus mentioned in the last report was, after the operation, followed by abscess behind the globe, sloughing of the cornea, and effusion of blood into the globe.

Six cases of external strabismus; five treated by subconjunctival division of the external rectus; one (case of Mr. Poland) by bringing forwards, over *the inner edge of the cornea*, the soft parts covering the sclerotic, keeping the eye turned in for the first thirty-six hours by a suture drawn through the conjunctiva near the outer corneal edge, and fixing it to the skin on the bridge of the nose.

4. *Cornea and sclerotic.*—One case of perforation of the sclerotic opposite the ciliary processes by a piece of steel, and followed by ophthalmitis, was treated by introducing a probe in the track of the wound, and allowing part of the contents of the globe to escape.

One case of staphyloma in a child in which, after purulent ophthalmia, the whole cornea had been lost, and the iris covered by organized exudation protruded so as to keep the lids separated, was treated by drawing a thread through the globe at the boundary of the staphylomatous part, so as to steady the eye, and then shaving off the staphyloma close behind the thread.

One case of staphyloma of the sclerotic, which by a former operation had been punctured, and had reformed, was removed with scissors.

The case of conical cornea mentioned in former reports; treated by adhesions of the iris to the cornea, and thus forming a transversely oval pupil, is so far advanced as to have the pupillary margin adherent at two opposite points in the lower half of the cornea; at a third operation the cornea was opened at its upper and inner part, and with the blunt hook and iris forceps the corresponding pupillary margin drawn out and left in the corneal wound; some bleeding occurred into the anterior chamber.

5. *Iris.*—Detachment of iris adhesions in 5 cases of Mr. Streatfeild.

After opening the anterior chamber with the broad needle, the adhesions easily detached, by bringing the cataract spatula behind them, and lifting them away from the points at which it had been adherent. Of these one was a case of injury (perforation of cornea, with subsequent adhesions to the cornea and occlusion of the pupil.) The corneal adhesions, as well as those in the area of the pupil, were detached; the detachment of the former was followed by some bleeding in the anterior chamber, which was increased by subsequent vomiting. In all cases the pupil assumed a more regular round shape.

Formation of an artificial pupil in three cases.

In one case after opening the cornea with the broad needle the iris was detached opposite the transparent part of the cornea with the blunt hook. In the two other cases the broad needle was introduced through the opaque part of the cornea, and advanced in the anterior chamber to its transparent portion, when the needle was thrust into the iris, and by moving the handle forwards and downwards the iris was partially cut, partially torn, so as to form an oblong pupil.

Two cases of prolapse of the iris after injury of the cornea; the prolapse was shaved off with the scalpel, and the bleeding surface touched with nitrate of silver.

The case of cyst of the iris, (patient of Mr. Dixon; see a former report.) The cyst occupying all but one-fourth of the lower part of the iris had again filled, and caused great pain. A broad needle was introduced through the sclerotic, about four lines from the outer and upper corneal edge, and advanced through the posterior wall of the cyst. The fluid of the cyst not escaping, a cataract knife was introduced through the same wound, so as to enlarge it, when, after the escape of some yellowish fluid, the cyst collapsed.

Seven cases in which Graefe's operation for glaucoma has been performed. (Patients of Mr. Critchett, and Mr. Bowman.)

The operation essentially consists in introducing a cataract knife through the semi-transparent part of the sclerotic, close to the corneal edge into the anterior chamber, and making the incision from one-quarter to one-sixth of an inch long; when the knife is withdrawn the aqueous and iris follow it; the prolapsing iris is drawn out at one corner of the section, and the drawn out portion snipped off with scissors, so that from one-quarter to one-third of it is removed; it is supposed that by this means the vitreous and aqueous chambers are thrown into one, that the remainder of the iris atrophies, and that the tension of the globe being diminished, the resorption of the fluid effused in the deeper tissues of the eye is encouraged; the retinal vessels admitting more blood, small blood effusions are more frequent on the retina. Mr. Bowman introduces the knife at the upper edge of the cornea; thus allowing the upper lid to cover part of the very large pupillary opening.

The following may in its symptoms be considered a type of the above cases; the central part of the cornea was slightly dim, (anæsthetic according to Graefe,) the pupil rather dilated and immovable, its area dull, sometimes greenish, the veins emerging in the ciliary region enlarged, and the globe stone hard; there were no other inflammatory symptoms. The patient saw fingers held before the eye; but there had been repeated occasional loss of vision, complete blindness, with chemosis, pain, and extreme hardness of the globe; these attacks recurring, with periods of temporary relief, terminated in complete loss of vision.

One case accessible to the ophthalmoscope showed numerous effusions of blood over the whole retina, another showed atrophy, (bluish, white-looking disk) of the optic nerve, a third a great quantity of brownish flakes floating in the vitreous humour. No case was followed by bleeding, inflammation, or other bad result.

6. *Crystalline lens.*—Ten cases of extraction: one corneal section was followed by the loss of some vitreous humour, which just sufficed to reduce the tension of the globe. All the lenses were extracted by the upper corneal section; and two of them were cases of double extraction.

A clear lens was extracted in a case of glaucoma, in which Graefe's operation had been performed. In another case of opaque lens with acute glaucoma, the lens was removed with the scoop through a small corneal opening. One case of soft cataract at the age of 52, in which the needle operation was adopted.

Three cases of extraction, where after iritis the pupil was blocked up by exudation thrown out in its area.

Two cases of congenital cataract, in which both lenses were broken up with two needle.

One case of central opacity on the anterior surface of the lens, forming a pin's-head-sized opaque disk (apparently projecting through the pupil), surrounded by transparent lens substance. On touching the opaque disk with the broad needle it easily detached, and was drawn out with the canula forceps; microscopically its edge was formed by a transparent fringe of capsule; yet I was unable to decide on which side of the capsule the opaque disk was situated.

Five cases in which a false membrane, extended behind the area of the pupil, was opened out with one or two needles.

In one case the shreds of false membrane were drawn out with the canula forceps. In another case, where an amber coloured membrane overspread the whole area behind the pupil, the cornea had been opened with the cataract knife; the section extended with the blunt knife, and the membrane resisting the needle and canula forceps, was, close to the pupillary margin, perforated with the cataract knife; the remainder of its adhesions separated with the canula scissors, and the membrane in shreds drawn out with the canula forceps. There was very little bleeding, as is usually the case in these soft globes. The other eye had been lost by an injury.

One case in which the entire cornea had sloughed away, and the iris bulging forwards presented in its pupillary area a transparent projection (supposed to be the anterior surface of the lens capsule), was treated by puncturing this transparent surface, after which some normal vitreous humour escaped; the vitreous was left to ooze away, and the globe to shrink gradually.

7. *Excision of the globe in* 3 *cases.*—1st. C. M., aged 12, for melanosis of the globe; the melanotic mass developing within the globe(ciliary processes) had perforated the sclerotic, near the outer corneal edge. 2nd. H. C., aged 52, a shrunken globe, whose contents had escaped subsequently to an injury, and had caused much irritation. 3rd. J. R., aged 58, for hæmorrhage into the globe; a cataractous lens having been extracted, considerable bulging of the vitreous humour ensued; on opening the posterior capsule to relieve the tension, the oozing of the vitreous was shortly followed by escape of blood. There was no doubt that the bleeding in the interior of the eye continued. Every one knows the painful and tedious (six weeks to two months) after-treatment of these cases; the globe was removed as the shortest and safest course for the patient; and the central artery continuing to bleed, the orbital cavity was plugged with lint. On examination of the globe, a very small quantity of blood was found in the vitreous humour; a large quantity effused between the choroid and sclerotic, detaching the former and pressing the vitreous forward.

The three excisions were performed by enucleating the globe from its capsule in the usual manner.

Total of major operations - 102
Total of minor ditto - - - 127

HOSPITAL NOTES.

PURULENT PERITONITIS—RECOVERY FROM TETANUS, ETC.

Dr. Bristowe has at present several cases of much interest under his care, in St. Thomas's Hospital. In one, a girl, suffering from all the symptoms of diffuse peritonitis, has had a large abscess form, and give way. The pus is believed to come from the peritoneal sac, and it is supposed that the abscess has become circumscribed by adhesions. There seems fair reason to expect a good result. Considering the frequency of purulent pleuritic effusion, it is somewhat singular that the formation of pus should so rarely attend idiopathic peritonitis. Indeed, free effusion of any kind into the peritoneal sac, as the result of inflammation, is rare. Another case of much importance is that of a girl suffering from subacute tetanus, who is recovering. At first her symptoms were attributed to spinal arachnitis, and a mercurial and counter-irritant plan of treatment was freely pursued. It was, however, found afterwards that a contused wound on one knee had been received prior to the attack, and it seemed therefore more just to consider the symptoms as tetanic. The antiphlogistic plan, however, appears to have been useful, and she is now doing well under a more tonic one.

NECROSIS OF THE ARTICULAR SURFACE OF THE FEMUR.

An operation of a novel character was attempted at St. Thomas's last Saturday, but was prevented from completion by the circumstances of the case. It was to have consisted in a no less bold measure than the removal of a sequestrum from the very articular facet of the femur, and the saving of the limb without any resection procedure. A cachectic man, worn down by diseased knee-joint, was placed on the table, his left knee being greatly swollen, and presenting several sinuses on its inner side. Mr. Simon, the operator, remarked that a careful examination of the part, added to the history of the disease, induced him to believe that a small sequestrum either in the head of the femur or the tibia existed, and this he proposed to remove, intending at the same time to make such incisions as would permit of an excision being performed, if needful. A curved incision was carried from one side of the joint to the other, in the usual manner for resection, the ligament of the patella cut through, and the flap reflected upwards. The interior of the joint was now freely displayed by bending the limb, and cutting what remained of ligamentous impediment. The cartilage was found removed in almost all parts, the osseous surfaces were extensively ulcerated, and the joint contained grumous pus and loose lymph. On examining the articular surfaces of the bones, two necrosed and loose portions, about the size of shillings, and a third of an inch thick, were discovered in the inner condyle, and easily taken out. Mr. Simon now washed the wound well, and proceeded to replace the limb in the straight position. This, however, was found to be impossible, as the bones could not be reduced until the condyles had been sawn away, and the operation converted into an ordinary excision. Mr. Simon afterwards explained that his view was, that when sequestræ existed in the cavity of a joint, they were the sole causes of the continued irritation, and that their removal was the only resource necessary. He felt much disappointed at not having been able in this instance to carry out his original intention.

DEATH FROM SYPHILITIC LARYNGITIS.

As we have often remarked before, it is important to the right estimate of the value of any particular operation, to record, not only the cases in which it is performed, but those also in which it was advised, but refused. By a comparison of these two classes we get a fair conception of its usefulness. We know that after herniotomy about a fourth of our patients die; yet this does not prevent our continuing to perform it, because we also know that of those who refuse the operation not one in a hundred recovers. The possession of a like standard of comparison respecting, for instance, tracheotomy in croup, and perineal section for stricture, would be of great value, and would lead to much more truthful estimates of operative interference than we at present possess. One fact of this nature we may just mention, which occurred a few days ago in the practice of the Metropolitan Free. A Jewess, aged 29, was admitted about four months ago, under Dr. Ramskill's care, on account of old-standing syphilitic disease of the larynx. The history given was, that for long her breathing had been much impeded, and that on several occasions attacks of urgent suffocative dyspnœa had occurred. Mr. Hutchinson, who saw the case in consultation with Dr. Ramskill, strongly urged the performance of tracheotomy, as a precautionary measure against these attacks, a recommendation in which Dr. Ramskill joined. The woman, however, refused to consent. She was relieved for the time by anti-syphilitic treatment and counter-irritation, and got on in tolerable comfort for three months, the loss of voice and a certain degree of obstruction being, however, permanent. On Thursday last she again applied, having "caught cold in her throat." Dr. Pearce, who saw her *vice* Dr. Barnes, prescribed the usual treatment, but in the night following she had a sudden and severe aggravation of the dyspnœa, and died. No autopsy was permitted. We have recorded numerous cases in which patients suffering from an almost similar condition have been relieved by tracheotomy, and have lived many years in comfort, still retaining the tracheal tube. The form of laryngitis is that in which ulceration has taken place, and the calibre of the rima glottidis has been already so much diminished by the resulting cicatrices, that a slight relapse of inflammatory œdema suffices to occlude it. Perhaps a majority of the few adults who

actually die of syphilis die in consequence of this one form of disease.

GALVANISM IN INCONTINENCE OF URINE.

Mr. Simon has recently been treating some cases of incontinence of urine in children by means of galvanism, the current being conveyed by the aid of a catheter in the bladder. The result in two or three well-marked cases has been quite satisfactory. The cases selected for it must, of course, be those of true incontinence from atony, and not of irritable bladder from urinary causes.

EXCISIONS OF THE KNEE-JOINT.

We are glad to be able to report that Mr. Simon's patient, in which this operation was performed last Saturday (see above, "Necrosis of," etc.), is doing well. Mr. Le Gros Clarke has at present under his charge, in St. Thomas's, a patient in whom the healing process has been remarkably quick. She is a young woman of delicate aspect, who had suffered from diseased knee for three years. Things got worse, her nights were rendered restless by gnawing pain and startings during sleep, and Mr. Clarke accordingly determined to resect. A long previous treatment had altogether failed, and the disease was evidently advancing. No abscesses had ever given way, and the swelling was rounded and general about the articulation. Resection by the ordinary method was performed, and the limb put on a swing-splint. All pain ceased at once, and the girl's improvement in health dated almost from the day of the operation. Excepting a mere point, the wound was soundly healed at the end of a fortnight. She now eats and sleeps well, and is gaining flesh. We have not seen any other case which has done well so rapidly as this, and must be careful to state that it is quite exceptional, and not an example of what is to be ordinarily looked for.

NOTES AND QUERIES.

He that questioneth much shall learn much.—*Bacon.*

ANSWERS.

No. 217.—Early use of Anæsthetics in Surgical Operations.

By way of general answer to your Correspondent's particular inquiry, No. 217, I beg to make the following observations:—

The passage quoted from Sylvester's translation of Du Bartas, is paralleled by one from Middleton's "Women, beware Woman," (published in 1657,) thus—

> "I'll imitate the pities of old Surgeons
> To this lost limb, who ere they shew their art
> Cast one asleep, then cut the diseased part."

Similar passsages occur in the works of other poets of that period; they abound in those of our great dramatic author, who alludes to the practice of inducing sleep by drugs as of common occurrence; why this practice should have almost suddenly ceased, as well as all reference to it in our popular literature, it is not easy to determine. The disgrace into which witchcraft just then fell may afford some help to an explanation, for it is quite certain that the "wise women" and the professors of the black art, not only affrighted the imagination of their victims, but likewise resorted to the administration of the most terrible poisons, in the shape of dark drops, strong smelling potions, vapours from the seething-pot, and certain ointments, of which last a curious account is to be found in an old work entitled, "The Living Library, by R. Camerarius, A.D. 1625, done into English by J. Mole, ch. xiii." "On strange Illusions of Devills and Spirits, and of the Lycanthrops." "Shee," says the venerable author, "rubs over all her bodie with a certaine oyntment, which we saw thorow the chinkes of the doore. The operation of the soporiferous juyces, whereof this oyntment was compounded made her fall to the ground, and brought her into a deepe sleepe: upon this we open the doore and some of us begin to strike her and knock her well-favouredly, but she was so soundly asleepe that to strike her bodie and a stone it was all one. Foorth wee goe againe, in the meanwhile the oyntment hath ended his working, and the old trot being awaked, begins to tell tales of Robin Hood, saying that she had passed far away over seas and mountains. Wee tell her that her bodie had never stirred out of the chamber. Again, it is certaine," says our author, "that some women, witches and empoisoners, to drawe unclean spirits unto them have used to annoint and rub themselves with a sleep-causing oyntment and so to get them to bed, where they sleep so soundly that they cannot be awaked though one pinch them never so hard or prick them with needles, or burne the soales of their feet."

It is highly probable that by the employment of external agents, such a degree of insensibility was induced, as enabled the suspected party to bear, without flinching, the tortures inflicted for the purpose of detecting witchcraft. Another and very different method was resorted to for rendering a patient insensible to the pain of a surgical operation. In the first place, what was called a pomum somniferum had to be prepared; this pomum was composed of the juices and extracts of the mandrake root, the belladonna leaves and berries, the solanum, poppy heads, henbane leaves, hemlock and other narcotic plants. The mode of obtaining and concocting these herbs had been handed down from the earliest ages by tradition, and was kept a profound secret by the northern descendants of the ancient Sybils. There was in well nigh every village, an old crone, with the short, crooked walking-stick, the rod of Hermes, and the hooded cloak or sacred peplos, who knew at what age of the moon or conjunction of the planets the objects of her nightly search yielded all their potent virtues; and what kind of muttered spell was best suited to bring out, or infix the peculiar qualities of each plant or herb. All these preparations, however powerful, were soon to yield to the less rude attempts of the alchymist, who had discovered a liquor so fragrant, so transparent, and so evanescent, that he could find no term for it, not anything to liken it to but ether, or the essence of air; he had distilled by his alembic the strongest wine five times over, and had obtained what he designated a quintessence; he repeated his experiments with the addition of sulphur, of common salt, and lime, and lastly strong acids, and the happy result was anodyne ether; still he was not inclined to forego the use of what had been sanctioned by the experience of ages, the pomum somniferum; and accordingly this was dissolved in the new menstruum, and undoubtedly added much to its effect. In the hands of the alchymist, then, we find the somniferous essence or the hypnotic tincture; and to show in what way it was applied, I will translate literally a passage from the works of one of the greatest of those chemical sages.

"The aforesaid drugs," says he, "or as many of them as possible, being converted into an essence, this is to be shut up in leaden vessels, most accurately closed, lest the subtle aura should escape, for in that case the virtues of the medicine would vanish away. At the moment of using, the lid being opened, the vessel must be brought immediately under the nostrils of the sleeping person, and he will draw in by breathing the most subtle strength of the vapour, and thereby his senses will be locked up as it were in a citadel, so that he will be buried in a most profound sleep from which it will be impossible to awaken him."

G. M. O. will find a report in the Medical Gazette of a paper on Anæsthetics, read before the South London Medical Society, February 17, 1848.

Clapham, Nov. 10, 1857. Thomas H. Silvester, M.D.

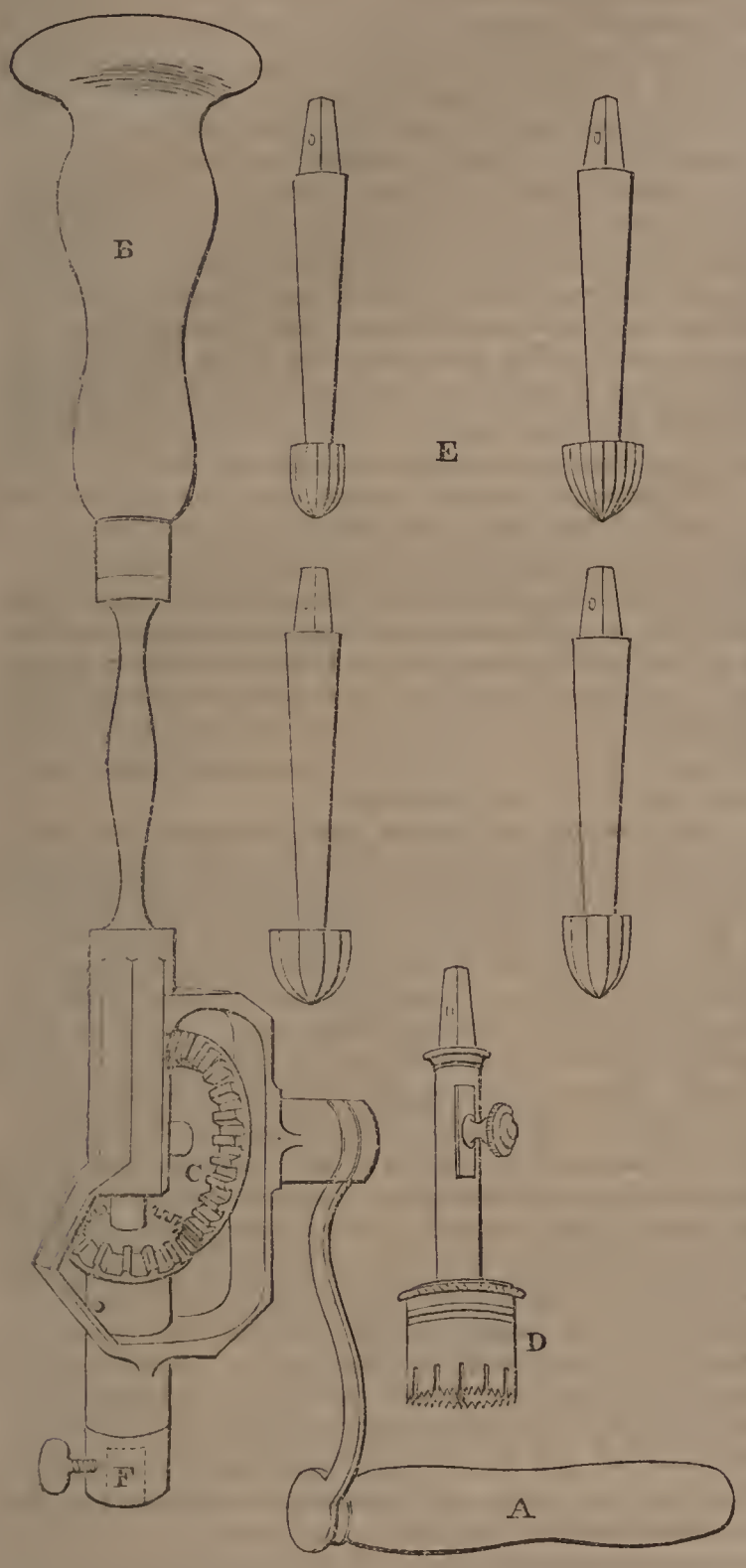
NEW INSTRUMENT.

IMPROVED TREPHINE AND OSTEOTOME.

By THOMPSON FORSTER, Esq.
House Surgeon to the Royal Infirmary, Manchester.

Some little time since I devised what I suppose to be an improvement on the old trephine, with the addition of a contrivance for drilling bone, naming it Thompson Forster's improved trephine and osteotome. I have lately had an opportunity of seeing its practical utility verified, and have, consequently, been induced to submit it to the medical public, assured, that should it prove as generally useful as in this hospital, it will be generally adopted. The annexed diagram will show the extreme simplicity of the instrument. The

handle moves the trephine or osteotome by means of two cog-wheels, the upper end being steadily held and but slight downward pressure used, the handle being then moved with the other hand.



A. Handle. B. Portion which is to be steadied. C. Cog-wheels. D. Trephine. E. Osteotome in various sizes. F. The part into which the trephine or osteotome is fitted.

The instrument has been used in this hospital and highly approved by the surgeons. It was made by J. and W. Wood, King-street, Manchester, who have carried out my views in their usual skilful manner.

Irrigation of Sewage.—Dr. Southwood Smith, Professor Way, and Mr. H. Austin, of the General Board of Health, have gone as a deputation to Milan to inspect works of irrigation there, with a view to the important question of the application of sewage to agricultural purposes, in connexion with the great metropolitan sewage problem in particular, and the utilization of the sewage of towns in general.

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Medical Times & Gazette.

SATURDAY, NOVEMBER 14.

THE SALE OF POISONS BY APOTHECARIES AND DRUGGISTS.

The association of the name of Apothecary with the traffic in poisons may perhaps startle the reader who peruses only the title of the present article; and if, in the remarks which we propose to offer, our sphere of observation were limited to the confines of England and Wales, we should be committing an act of obvious injustice in connecting under the same heading, the General Practitioners of this country with the guilty or careless vendors of poisonous agents to the murderer or the suicide. But when we take a wider range, and reflect upon the condition of the Apothecary, not only in other civilized nations, but in other divisions of our own empire, it will be found that everywhere, except in England and Wales, that functionary is entrusted with the duty of selling and compounding drugs, and that he is morally and criminally responsible for the improper use of the dangerous weapons confided to his care.

Although we have on various occasions pointed out the anomalous position held in our own part of the British dominions by those who retain legally the name, but have in a great measure abandoned the pursuit of the Apothecary; and although it is probable that few, if any of our professiona readers are ignorant of the law or of the practice upon these points, yet, as we shall soon enter upon another Session of Parliament, when Medical legislation may be anticipated, and as our pages may probably be consulted by those of the laity who wish to make themselves accurately acquainted with the existing state of medical affairs, we think it expedient again to call attention to the reckless indifference with which modern legislation regards medical affairs, and the apathy which is evinced to the welfare of the community so far as regards the indiscriminate sale of drugs and poisons in this country.

There is indeed a most remarkable contrast, in this particular, to be observed between the paternal care manifested by our bygone monarchs and parliaments on the regulation of the due supply of drugs, and the modern carelessness displayed upon the same subject. If we study the charters and acts of Parliament granted and passed in the reigns of Henry VIII., Mary, James I. and Charles II., we find repeated efforts made on the part of the monarch and the legislature to control the traffic in drugs for the public advantage: powers having been entrusted from time to time to various corporate bodies, enabling them to examine all Druggists' shops, to test the purity of all medicines sold and compounded, and to burn or otherwise destroy all drugs found to be corrupted or impure. Penalties were also im-

posed upon persons unlawfully practising the craft of apothecaries, and also upon licensed persons who should be guilty of misconduct. The act of 1815, while it elevated the then existing apothecaries to the rank of duly licensed practitioners of medicine, retained all the stringent regulations relating to the calling, as it was then exercised. But it made no provision at all for the Chemists and Druggists, or rather, it expressly exempted them from any supervision whatever; and the consequence has been, that while the members and licentiates of the Apothecaries' Company of London have in many cases abandoned altogether the sale of drugs, and have in most instances taken degrees or diplomas in medicine and surgery, the useful and important functions of the Pharmaceutist have devolved upon a class of persons who have given no guarantee of their competence for their duties, and who are under no control by any legally constituted authority. Hence it has arisen that the selling and compounding of drugs have been and still are left to any one who chooses to exercise the calling, however unfit he may be; and the records of our Coroners' inquests and of our Criminal courts prove how great has been the sacrifice of human life which has been the deplorable result. Sometimes a drunken woman, entrusted with the sale of drugs, poisons herself with laudanum obtained from the shop of her equally drunken husband; at another time, an ignorant boy dispenses a drug which causes almost instantaneous death to the person to whom it is sent; in a third case, a careless shopman sends a dose of prussic acid mixed with castor oil, with immediately fatal effects.(a)

Now it cannot be denied that under any system of legislation, accidents or mistakes or crimes might possibly occur; but they would unquestionably be rendered of very rare occurrence if the dispensers and compounders of medicines were compelled to submit to such wholesome regulations as are imposed by law upon those who practise other arts or who exercise other trades. Even the retailer of beer or tobacco must obtain a licence from the government before he can sell his commodities to the public; and the driver of a cab or an omnibus must receive a legal authority before he can drive a vehicle through the streets: but the English Druggist, who is daily and hourly entrusted with the manipulation of drugs, on the due administration of which often hang the issues of life and death, is subject to no control and is responsible to no authority.

They manage these things better in Ireland. In that part of the empire an act was passed in 1791, which subjected the practice of the Apothecary to very stringent and salutary regulations. We should here repeat what has before been stated in our pages, that the Irish Apothecary holds a different position from the practitioner of the same designation in our own island. For whereas the business of the chemist and druggist was distinctly and pointedly exempted from the operation of the English Apothecaries' Act of 1815, and the English Apothecaries have in many cases shut up their shops, taken degrees and diplomas, and have ceased to be tradesmen; in Ireland, on the contrary, the act of 1791 was expressly intended to regulate and control the sale of drugs, and in fact to secure to the Apothecaries the monopoly of the composition and dispensing of medicines. No person in the sister island can open a shop for the compounding prescriptions, or can practise any other part of the profession of an Apothecary, unless he has passed an examination before the Court of Examiners of the Dublin Apothecaries' Hall; and if he does so practise in opposition to the law, he is liable to a fine of £20 for each offence. A most important provision in this act prohibits the sale of arsenic by the Apothecary except under very peculiar circumstances, a penalty of £20 being imposed upon any one who vends that drug without taking ample precautions against its being employed for an improper purpose. The practical result of this legislation has been that the pharmaceutists of Ireland, instead of being ignorant and incompetent persons, are really educated and certificated apothecaries, who have passed a stringent examination in general literature and medical science, and who thereby offer a security to the public that the drugs they compound will be genuine, and that due care will be employed in their preparation; at the same time it is deeply to be regretted that, in some respects, as we pointed out on a former occasion (vol. xxxv. p. 389), "the trade in poison appears to be as mischievously free in Ireland as it is here."

With regard to the social status of the Irish Apothecaries, we believe that practically they may be divided into two classes: one which, in the medical halls as they are called, confines itself strictly to the preparation, compounding and dispensing of drugs, occupying in fact the position which is usurped by the English chemists and druggists; and a second class of practitioners, who are, in fact, analogous to the English General Medical Practitioners, and many of whom, in addition to their Apothecary's licence, take medical or surgical degrees.

Thus it will be seen that the sale of drugs and the custody of poisons is entrusted in Ireland to a class of practitioners who are responsible to the State for the competence with which they discharge their functions; but complaints are made that poisons are still sold in that country by mere druggists, or by grocers, or by sellers of paint, who although precluded from selling or compounding drugs, according to the prescriptions of a physician, are not prevented from selling drugs or poisons at the request of a customer in the ordinary way of trade. Dr. Neligan, in his evidence lately given before the Committee of the House of Lords, relates that he saw this summer, in inspecting the druggists' houses in Ireland packets of Epsom salts made up in pennyworths, and packets of oxalic acid in pennyworths, of precisely the same shape, and freely sold to any customer. The same physician was told by an Irish druggist that he sold weekly half a hundredweight of oxalic acid in pennyworths. Notwithstanding these monstrous proceedings, the cases of poisoning in Ireland are rare in comparison with their frequent occurrence in this country; and the difference is, no doubt, due to the fact that the compounding and dispensing of medicines, including, of course, most of the poisons, are confided to the licensed and educated apothecary.

The Bill introduced into the House of Lords last session was vehemently opposed by the Pharmaceutical Society, and to this opposition the temporary withdrawal of the Bill was no doubt due in a great degree. The difficulties of the subject are unquestionably great, because many very common medicines become poisons when administered in improper doses; and *vice versâ*, some of our most virulent poisons—as arsenic, prussic acid, and opium, are indispensable instruments in the hands of the Medical practitioner. Still we are not convinced by the reasonings of those who urge that any person ought to be allowed to procure such substances as prussic acid on his own responsibility; nor are we quite clear that it is necessary to give to the druggists the unchallenged right of selling even opium or laudanum to all who ask for it. We are of opinion that these medicines ought only to be used by the public under the direction of a Medical practitioner, except

(a) Dr. Alfred Taylor, in his evidence lately given before the House of Lords, states that he had occasion to examine the arsenic book of a druggist in a town of 6,000 inhabitants; and it was found that in two years there were no less than thirty-six purchases of arsenic, the quantity sold amounting to *thirty-three ounces*, a quantity literally much more than sufficient to poison the whole town! The same witness mentioned that a woman named Chesham, who was four times tried for murder, had about thirty-seven noxious substances in her possession, and was able to procure arsenic with the greatest facility.

under peculiar circumstances, and that the sale of such articles should be guarded with the most careful regulations.

The restrictions imposed by the Bill would no doubt have diminished in a very great degree the number of deaths by poison, and we are justified in so believing, by comparing the limited mortality from poisonous agents in those countries —such as Prussia—where restrictions exist, as compared with the deaths from the same cause in this country, where no restrictions exist at all. We have reason to believe, from the great importance of the subject, that it will receive early attention in the forthcoming session of Parliament. The time has now arrived when the practice of the English chemist and druggist should be made subject to wholesome regulations, such as exist in other countries, which would at once elevate that class of the community to a higher position in the social scale than they at present occupy, and which, at the same time, would offer sufficient securities to the public against the maladministration of medicines and against the indiscriminate traffic in poisons.

THE WEEK.

This week will be an important one in the history of the Army Medical Department, as we believe that Government has consented that the *minimum* pay of Assistant-Surgeons in the Army is to be in future ten shillings a day. It is needless to point out how beneficially this measure is calculated to operate upon the department, and to benefit the soldier and the public.

A trial for poisoning, of a peculiar character, has been taking place at Edinburgh. Last Monday a female servant pleaded guilty to culpable homicide, and was sentenced to eighteen months' imprisonment, she having given ten drops of laudanum to an infant, in order to make it sleep, but the dose killed the child. An example of the kind was needed, as we have reason to believe that many infants are too effectually "quieted" by housemaids.

About 1050 Medical Students have entered to the different Schools of the metropolis this session. This is rather below the usual number, notwithstanding the increasing demand for the services of Medical men abroad. Unfortunately the supply of subjects for dissection is diminished far more than the number of students. There is clearly some defect either in the Anatomy Act, or the manner in which it is worked, and it is high time that some steps were taken to secure a better supply of subjects, and at a rate of payment not higher than that of Dublin or Edinburgh.

We are glad to find that an energetic attempt is being made to improve the supply of drinking water in our eastern suburbs. Early this year an influential deputation waited on Sir George Grey to beg that "*immediate* and independent measures be adopted to carry off the sewage from their houses, and the stagnant water which accumulates on the surface of the soil." Correspondence took place between the Local Board and the General Board of Health, but nothing was done till cholera broke out, when the incumbents of Plaistow and Stratford, and Mr. Brady of Stratford, addressed Mr. Cowper; and here is a specimen of what was disclosed on a visitation of the district: "For the eight houses on the side near Vicarage-terrace there was one privy at the end of the court, common to all the inhabitants of these houses, and open to the public street! but it has long been so full and overflowing, and the wood work so decayed, that it was impossible to enter;—the sight and smell were alike odious. Under the pump is a sink, which the neighbours all said was the only drain. Into this they *habitually empty all the slops of their houses*. They truly said they had no other place to throw them into. This sink communicates, either directly or indirectly, with the well underneath. It has long been pointed out to the local authorities as frightfully fouled by the most filthy drainage, yet the people still drink this water —they have no other: and so late as Sunday the 25th Oct., 1857, after Mr. Cowper's visit, the women of this court were seen filling their tea-kettles from this foul well." The General Board has written to the Local Board, adding, that "the residents in Gilby's-alley, Black Lion-row, John's-court, and similar places, complain of the repulsive and poisonous character of the water they draw from their pumps; and the President desires to remind the West-Ham Board of the urgent necessity of getting the supply of water provided by the East London Water Works Company substituted for the tainted supply of shallow wells." We trust that this recommendation will be attended to, and that energetic steps will be taken to guard against the epidemic which may be expected next summer.

Attention has been drawn during the week to the condition of the Metropolitan Omnibuses. The principal company engaged in this service claims credit for the improvements they have effected; but we must say that on sanitary grounds alone there is great room for further improvement. We want cleaner, more roomy, and better ventilated vehicles for the accommodation of the public. In this respect our omnibuses are far behind those of several of our provincial towns. A proposed tramway from Notting Hill to the Bank, by way of the New-road, is likely to be the first step in a movement which aims at the useful objects of lessening noise and clearing our street traffic.

The public dinner season is commencing; and the annual Lord Mayor's dinner of the Society of Apothecaries, on Wednesday last, at their great Hall, was a very successful one. Among the guests who were present were the President of the College of Physicians, Mr. Stanley, Sir John Hall, K.C.B. etc. The greatest cordiality and good feeling appeared to exist between the representatives of the different bodies of the Profession. The late conferences on the question of Medical Reform, though they have not yet led to the anticipated legislative enactment, have, at all events, produced this great result—that of bringing together into more friendly relationship the different sections of the Profession, and securing a greater degree of unanimity and mutual good will than has probably ever before existed. The toast on the Army and Navy was coupled with the name of Sir John Hall, who, it will be remembered, was the principal Medical Officer in the East during the late war, and who never left his post in the Crimea throughout that memorable campaign. In returning thanks for the Army, Sir John Hall observed that having seen upwards of forty years' service, he had good reason to know the heroism, endurance and bravery of British soldiers. During a lengthened service—first in the West Indies, then on the coast of Africa and India, and more recently at Alma, Inkermann, and Sebastopol—his conviction had steadily increased that, in point of daring bravery, of dauntless resolution and intrepidity, as well as of the most heroic endurance under privation and suffering, the British soldier has in no way deteriorated from former days. Even now, at the present day, we have before our eyes a further glorious confirmation of that fact, for the noble achievements of Havelock and his gallant band have not been surpassed in the history of the world. After some excellent speeches from Dr. Mayo, Dr. Hawkins, Dr. Bence Jones, and Mr. Tegart, the company separated.

The following advertisement, which is being widely diffused by several papers, is a curiosity in its way:—

"A retired Physician, whose sands of life have nearly run out, discovered, while in the East Indies, a certain cure for Consumption, Asthma, Bronchitis, Coughs, Colds, and General Debility. The remedy was discovered by him when his only child, a daughter, was given up to die. He had heard much of the wonderful restorative and healing qualities of preparations made from the East India Hemp, and the thought occurred to him that he might make a remedy for his child. He studied hard, and succeeded in realizing his wishes. His child was cured, and is now alive and well. He has since administered the wonderful remedy to thousands of sufferers in all parts of the world, and he has never failed in making them completely healthy and happy. Wishing to do as much good as possible, he will send to such of his afflicted fellow-beings as request it this recipe, with full and explicit directions for making it up and successfully using it. He requires each applicant to inclose him six stamps—one to be be returned as postage on the recipe, and the remainder to be applied to the payment of this advertisement.—Address H. James, M.D., 14, Cecil-street, Strand, London."

Dr. H. James's name does not appear in the Directory.

The Meeting of the Governors of the Orthopœdic Hospital on Wednesday resulted in the confirmation of the election of Mr. Adams by a large majority. The protest against the validity of the election was negatived. The demand for a scrutiny of votes was also negatived, on the ground that as the voting had been by ballot no scrutiny could be entered into. Lastly, it was determined that no alteration should take place in the rule of the Institution which prohibits the canvassing of governors by candidates, previous to the declaration of any vacancy by the Committee.

The agitation continues at Birmingham upon the subject of the recent Hospital election. The Professors held a special meeting on Monday, and entered a formal protest against the election of Mr. West. Their grounds are, that there is internal evidence that canvassing was actively effected during the period of the election on the part of Mr. West and his friends, and that the result of such canvassing was seen in the circumstance that several Members of the Council declared that they had promised their votes in favour of that gentleman, before entering that Meeting of the Members of the Council at which the election of Mr. West took place, and before hearing the Report of the Professors upon the qualifications and fitness of the respective Candidates. They add that the Council in the recent election of Mr. West have "acted in opposition to the spirit of the laws of the College, and to the intentions of the founder, trustees, and chief authorities who framed the said laws—the intention and clear meaning of such laws being, in the opinion of the undersigned, that the Council should not elect any gentleman to an office in the Queen's Hospital, or in the Medical department of the Queen's College, of whom the Professors had not previously stated that he was 'qualified,' 'eligible,' and 'best fitted.' The undersigned averring that the name of Mr. West was not included in the Report of the Professors, either as the 'best fitted,' or as one of the 'best fitted' candidates, and, therefore, that the name of the said Mr. West was not before the Council, in the sense contemplated by the law." They also state, that in accordance with the laws of the Hospital, the gentleman now elected Surgeon will be *Senior Surgeon* in four years and a half from this time; and therefore that he "ought to be of mature age, of high repute as a member of a scientific profession, and possessed of such an amount of practical experience as is required to give full confidence to the patients, sound instruction to the pupils, and valuable co-operation as an ex-officio Member of the Council in the administration of the affairs of the College and Hospital." After some further remarks upon the necessity of mutual confidence between the authorities of the College and Hospital the Professors conclude as follows: "On these several grounds, the undersigned, in full confidence in the desire of the Council to do justice to Candidates in open competition for a public appointment, and with the trust that the time-honoured usages of this College will still be maintained intact—and that the Council will not withdraw the confidence hitherto reposed in the loyalty of the Professors, when discharging their responsible duty, in accordance with the demands of the Laws, of advising the Council as to the best Candidate for a Medical appointment—beg again respectfully to request the Council to reconsider the recent appointment of Surgeon to the Queen's Hospital." The protest is signed by Drs. Davies and Heslop and Messrs Sands Cox and Knowles.

The Sydenham Society is defunct. The meeting on Saturday evening was a small one, and consisted of few excepting those on the Council. The resolution declaring it dissolved, although strenuously opposed by some, was carried by a majority of at least one-third. A strong feeling exists in certain quarters that its final acts have been hurried ones, and that they have been consummated by the Council without sufficient consultation with the members generally. We are of those who believe that a plan of treatment in which less of the merely expectant element entered, had it been commenced early enough, would have restored the patient to even more than pristine health. Great complaints have reached us as to the irregularity with which both subscriptions have been collected and the business circulars issued. One member in particular informs us that none of the three documents issued within the last few weeks, in respect to the contemplated winding up, ever reached him, and that he heard of the circumstance by accident. If such have been its clerical management, an important element in its disease is exposed. Rumours are afloat that a new Society on a somewhat modified basis, will be at once commenced. There can be no doubt that, without in the least interfering with the legitimate province of publishers, there is a wide field for most useful labour in this direction. The reasons of the failure of the Sydenham Society are quite apparent to all excepting its late Council, and its success, despite its faults, has been such as to afford the strongest encouragement to the originators of a new Society of somewhat similar kind.

The opening meeting for the session of the Royal Geographical Society was held on Monday evening at Burlington-house, Sir Roderick I. Murchison, president, in the chair. The diploma of the Society, as corresponding member, was presented to Dr. Livingston amid general applause. The President announced the publication of Dr. Livingston's Travels in Africa as a most interesting event, as it gave in the most graphic manner a clear account of the character of the countries traversed, the manners and customs of the natives, the physical features, commercial resources, and natural products of the different parts this enterprising Medical Missionary had visited.

Iodine Injections in Ovarian Dropsy.—A fatal case has just occurred under M. Maisonneuve, in Paris, in which iodine had been injected into an ovarian cyst. The patient was a young and healthy looking woman, and the injection was performed on the occasion of the first tapping. Death followed three or four days afterwards. It was stated after the autopsy that no peritonitis had been found.

REVIEWS.

A Manual of Medical Diagnosis; being an Analysis of the Signs and Symptoms of Disease. By A. W. Barclay. M.D., Assistant Physician to St. George's Hospital. London: 1857. 8vo. Pp. 612.

The object of the author of this work is to present a logical "Analysis of the Signs and Symptoms of Disease," not to give a mere "enumeration of symptoms," as has already been attempted by others, nor to hamper the memory with a vocabulary of exceptions, which serves only to perplex; but to place the department of diagnosis on its true basis—"inductions separately framed out of clinical and pathological investigations and experiments."

The neglect of accurate diagnosis has led to empiricism in two ways: by fostering the idea that severe disease has been cured by inefficient remedies, when the Physician was really dealing with a slight ailment; and on the other hand, by leading the practitioner to overlook the phenomena of morbid action, when "he finds the aimless impotence of quackery as successful as his own unguided efforts, and follows the fashion of the day in homœopathy, hydropathy, the abuse of the speculum," etc.

In the adoption of a method of diagnosis, "we find that there are two great classes of indications, the general and the local; each of these comprehending two divisions, the subjective and the objective, the sensations of the patient, and the alterations in structure or function of which the observer can take note." Along with these there is the "history" of the case, on which much stress is laid, and on this plan the author works out his conclusions.

At p. 21 there is given a classification of diseases such as used at St. George's Hospital, and which indeed was adopted there on the suggestion of Dr. Barclay himself. It is not put forward as perfect, but it appears in print at a critical juncture, when it is generally understood that some such scheme of classification is undergoing the process of incubation by the Royal College of Physicians.

The description of delirium tremens (p. 164) is extremely happy, as is the whole chapter on the "Quasi-nervous Diseases."

There are five chapters on the obscure subjects of the brain, spinal cord, paralysis and neuralgia, in which a comprehensive idea is concisely given of all the varied phenomena of disease included under those heads.

Chapters xvii., xviii., and xix. are devoted to the subject of auscultation, which is very originally handled. Putting aside the faulty nomenclature, which has in many instances "unfortunately been derived from the morbid condition with which the sounds have been supposed to be associated," the author divides the sounds heard in auscultation and percussion into "modifications of normal sounds," and "superadded sounds;" and classifies them according to the regions, and in all their varieties. The idea is good, and a perspicuous view is given of what is generally not very attractive in a book. The phthisis-curable gentry would do well to test their cases as carefully and accurately as a thorough knowledge of all the possible forms of pulmonic disease here enumerated and classed requires of an honest practitioner. "It is true that the patient cannot know whether we be right or wrong, and that it is a *safe* course to give a rather unfavourable prognosis in all cases of doubt: it is true that this course *is* pursued by many of the most popular and most successful practitioners; but it is also true that this is the course of quackery and imposture; and I believe that no earnest student will be satisfied with it, and that no right-minded physician feels quite comfortable in practising the little deception which such a method implies."—P. 311.

The auscultation of the heart is also dealt with under the heads of "modified normal sounds," "function sounds," and "murmurs," the latter subdivided into diastolic and systolic, so as to avoid any system of nomenclature which involves a diagnosis before other matters are fully considered.

There are two capital chapters on the urine and kidneys, and a most useful little table at p. 523, of the characters and chemical relations of the principal deposits and precipitates.

The uterine and speculum doctors are severely handled. "Unfortunately persons are always to be found who will use any pretext to enrich themselves at the expense of their patients, without regard to morality or propriety. A professional sect has grown up in England in consequence of the minute—the needlessly minute investigations of the accouchcurs of France—which, impelled by such motives, assumes to itself, under the guise of the spécialité, the management of all the diseases of the female sex; rightly or wrongly, with reason or without reason, referring them all to changes in the uterus. Diseases are spoken of as of frequent or constant occurrence, which we search for in vain, except in a very few instances, in the dead body."—P. 551.

The subject of skin diseases is treated lucidly and intelligibly.

The author writes with a confidence which severe and careful study can alone justify. There is a full table of contents, and a most copious index, which in such a work is invaluable.

In conclusion, we can honestly recommend this work to the Profession—to the junior members of it, as a handbook of study; to the seniors, as a useful compendium of things to be remembered in cases of obscurity.

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1. *England and France before Sebastopol, looked at from a Medical point of view.* By Charles Bryce, M.D., Fellow of the Faculty of Physicians and Surgeons, Glasgow; attached on special service to Scutari Hospitals, etc. etc. Pp. 124. London: 1857.
2. *Experiences of a Civilian in Eastern Military Hospitals.* With Observations on the English, French, and other Medical Departments, etc. By Peter Pincoffs, M.D. Leyd., Member of the Colleges of Physicians of London, Brussels and Dresden, late Civil Physician to the Scutari Hospitals, etc. etc. Pp. 202. London and Edinburgh: 1857.

It rarely happens that we are furnished with details on the organization and working of our Army Hospitals by independent Medical officers who have served throughout a campaign side by side with Army Surgeons; we therefore cannot doubt but that these two books will be received at the present period with very great interest, not only by the Profession, but by all who are concerned in improving the Medical Department of the Army. They present to us in a very agreeable form the experience of two very able and industrious observers; who appear to have been not only highly qualified for the special duties confided to them in our Military Hospitals in the East, but also to have entered upon their labours with an extensive knowledge of the public Medical departments, both in this country and on the Continent. Having further served as volunteers in the French Hospitals towards the close of the war, when the latter were insufficiently provided with Medical Officers, they had great opportunities of observing, and comparing the relative advantages of the Medical departments of the two armies.

We may here state for the information of many of our readers, that when, in the course of the last war, Her Majesty's Government declared the necessity of introducing the civil element to assist the regular Medical staff of the army, two very distinct measures were adopted to carry out that object. Firstly, the institution of civil hospitals, as those of Smyrna and Renkioi, which were to be under the exclusive management of civilians, to be entirely independent of the Army Medical Department, and solely answerable to the War office at home; and, secondly, the appointment of eighteen civil Physicians and Surgeons to assist, and co-operate with the Army Medical Staff in the military hospitals at the seat of war, with the understanding that they were not to be subjected to the usual discipline and regulations of the Department; but to perform their duties under the sole direction and supervision of the Inspector-General of the station.

Among the civil Medical officers so appointed, were the authors of the two books before us; and we consider they are entitled to the highest credit for availing themselves so largely of the opportunities that were opened to them, and for the great ability with which they have recorded the results of their experience.

Their pages contain ample evidence of the zeal and impartiality with which they inquired into the organization and efficiency of the different hospitals in the English and French armies; and it is a matter of special gratification that their researches have enabled them so thoroughly to vindicate the British Medical staff from much unmerited animadversion,

Both authors express grave doubts as to the ground assigned for the belief, in the winter of 1854-55, that the privations and sickness of the English army exceeded that of the French.

Speaking on this point, Dr. Pincoffs says, "I have been thus explicit in pointing out particulars, being anxious to vindicate my brethren of the army from unjust and indiscriminating remarks made upon them in the public papers during the winters 1854-55. Not contented with discussing the arrangements of the Hospitals, and the accommodation provided for the sick, they freely indulged in observations on the comparative merit of the Medical treatment of French and English physicians. The substance of those observations, which were generally disparaging to the English, shows that they must have originated, either with prejudiced Medical observers, or with non-professional visitors. (Pincoffs, p. 27.)

In France, Dr. Pincoffs adds, "There is no public press to disclose facts, the stern and inevitable consequences of war, which are, perhaps, better left untold, as if revealed they might shake the entire political edifice of the country." On the same subject Dr. Bryce writes, "The French Medical organization was especially recommended for our instant adoption on the assumption of its superiority, because fewer deaths were reported in their ranks. The accuracy of the assumption and the reasonableness of this inference are more than doubtful. In England, instead of any allowance for contingencies, the sufferings of the British army and the deaths from sickness during the first five months of the war were, on the instant, proclaimed with an ambitious fulness of detail and severity of language, that filled England with mingled grief and indignation. France, on the contrary, in camp and country alike, enforced silence of speech and disuse of pens other than official, concerning the real state of her army. Hence her comparative exemption, at the commencement of the campaign, from many of the evils and hardships endured by the English troops, was throughout attributed to her superior military system." (Bryce, p. 7.)

Dr. Bryce accounts for the disease and mortality which then prevailed in the British army in the following words :—"In January, 1855, an army, numbering upwards of 23,000 soldiers on its muster-rolls, had more than one-half of its strength in Hospital. Then every man present under arms had to perform his own duty and that of a sick comrade in addition. The uniform testimony of the Military Surgeons is, that it was neither the cold nor the privations of the first winter that was so fatal to the men, but the overwork in proportion to the quantity, quality, and irregularity of their food. It was notorious throughout the camp at the time, that the trench-work and trench-duty performed by the English were three-fold in amount to what were allotted to the French soldier. And herein lies the true explanation of the extraordinary difference in the sanitary state of our troops at the two periods. Whereas the first winter the army was exhausted by this overwork, and deficient in everything to support it but the patience, bravery, and discipline of the men; in the second, the same army was in every respect in a condition not equalled by any number of troops in any part of the world. In one week of April, 1857, only five deaths occurred in 72,000 troops under arms on Russian soil, and only twenty-two in all Hospitals, viz., those at the front, Kertch, Scutari, Renkioi, and Smyrna."

In striking contrast with the above figures is the account given of the state of the French army at the same period in Chapter III., which Dr. Bryce devotes to the discussion of the military effectiveness of the English and French armies at the close of the war. The French army was then suffering under a terrific invasion of typhus fever, which proved the greatest disaster and severest trial that it had to encounter during the whole expedition. For further information on that head we must refer the reader to the book itself. The facts collected in the author's personal experience, together with those which he obtained from the highest French authorities, led him to the following conclusions, with which he winds up the chapter :—

1. That whatever the muster-roll of the French army numbered in November, 1856, its efficient belligerent strength was then reduced below fifty thousand of all arms, inclusive of the troops at Eupatoria.

2. That at this period a devastating disease abounded in the French camp, under circumstances which inevitably tended to enlarge the sphere and hasten the course of its natural destructiveness, and consequently to reduce with fearful rapidity the remaining strength of the army.

3. That concurrently, the Medical Staff and Hospital sanitary resources of the army had become almost unserviceable.

4. That these evils were irremediable in the presence of an enemy, and incompatible with the immediate prosecution of the war.

5. That from these several united causes the French army had ceased to hold the foremost place among the allied forces in respect of numbers, equipment, and power of mobility.

Dr. Bryce's work contains a very large amount of information, now for the first time placed before the public. The book is extremely well written, and will no doubt prove a very valuable addition to the literature of the war. The results of Dr. Pincoffs's observations and experience as to the comparative state of the Medical department of the English and French armies, correspond closely with those of Dr. Bryce. Dr. Pincoffs writes :—"If from the description I have given the superior state of the British Hospitals in most respects as compared to the French (which was readily admitted by many French Medical officers, who with me visited our Hospitals), was apparent in the summer of 1855, this superiority was not only fully maintained up to the end of the war, but became particularly striking in the spring of 1856, when the French were so severely visited by scurvy and typhus, while our own Hospitals were almost empty, and contained scarcely any cases of the least importance."—Pincoffs, p. 34.

Dr. Pincoff devotes two chapters to the consideration of the causes which impair the efficiency of the Army Medical Department; and he signalizes many defects in its organization, which he believes contributed to the general confusion, and to the deplorable state of our army in the beginning of the late campaign. He concludes his task with remarks on the changes required in the organization of our military hospitals. This is the weak part of the volume. It would seem at all times easier to find fault and attribute blame, than to devise a simple, comprehensive, and practicable scheme for reform.

It is extremely gratifying to find that both authors speak in the highest praise of the heroism, devotion, and self-sacrifice displayed by the Medical Staff of the British army, and especially by the Regimental Surgeons who constitute the bone and sinew of that department. And we venture to hope that the impartial testimony of the authors and their colleagues will have the effect of rescuing the Army Medical Department from much unmerited obloquy, and prove that to the conjoint exertions of the Military and Civil Medical Staff was due the healthy and effective condition of the British army at the conclusion of peace—a condition which we believe to have been unprecedented in the annals of warfare.

PROGRESS OF MEDICAL SCIENCE.

Selections from Foreign Journals.

ON CONTRACTION OF THE AORTA OPPOSITE THE ENTRANCE TO THE DUCTUS ARTERIOSUS.

By M. DUMONTPALLIER.

M. Dumontpallier having met with an example of this rare vascular anomaly, has collected the particulars of ten other cases that have been recorded, and which he gives in some detail. Of these—two occurred in females, nine in males; and the ages of the subjects have varied from fourteen to ninety-two years; so that it is evident that this condition, which seems to be so dangerous from the obstacles it offers to the circulation at an early period of life, is, nevertheless, quite compatible with life. Of the eleven individuals, seven are stated to have been in good health; but the importance of the condition may be judged of by its effects upon the heart and the pulse. The latter is almost always reported as abnormal, though in different modes; while the great majority have exhibited functional disturbances of the action of the heart; and among the eleven cases, in six there was found after death hypertrophy of the heart, and in two rupture of that organ. The occurrence of the contraction at this same point in the eleven cases, M. Dumontpallier believes to be best explained upon the hypothesis of an extension of the obliterative process which takes place in the ductus arteriosus.

This is founded (1) on the constancy of the seat of the contraction; (2) on the frequency of puckering of the walls of the aorta at the same point, when no contraction is present; and (3) on the presence of the atheromatous, pseudo-cartilaginous, and calcareous deposits met with at the point of insertion of the arterial ligament. All these circumstances would seem to be dependent upon the same phenomenon—inflammation, which, physiological or normal in its operations upon the ductus arteriosus, sometimes extends into the aorta, giving rise to these various appearances—appearances that are also sometimes met with in the arterial ligament. The stricture of the aorta is variable in the extent of the vessel it occupies; but it is in all cases accompanied by a dilatation of the ascending aorta, and of the carotid and subclavian arteries. In the majority of cases, the contraction has been circular and regular, the diameter of the strictured point varying from one centimetre to two or three millimetres. In two cases the stricture was valvular, *i. e.* a diaphragm, having a perforation in the centre, being formed by the internal and middle coats of the aorta. The anastomoses, re-establishing the circulation below the stricture, originated in the left subclavian and the innominata. The internal mammary arteries always were so much developed that they might be regarded as two supplementary aortas. The epigastric anastomosis of these latter plays but a secondary part in the re-establishment of the circulation, which is especially brought about the anterior intercostals, the diaphragmatic and superior intercostal arteries. It is possible that in some cases, by examination of the anastomosing vessels and by the aid of auscultation, this abnormal condition of the aorta may be diagnosed during life.—*Gazette Méd.*, Nos. 4, 12, 19.

EXCERPTA MINORA.

Soft Sulphur for stopping Teeth.—M. Henriot states that he has derived great advantage by substituting this for the cements usually employed in filling teeth. It soon becomes hard and insoluble, and may be prepared in two minutes. Place in a small glass tube, closed at one end, some fragments of common sulphur, or better, a little washed sulphur; heat it over a spirit-lamp, and precipitate the sulphur in water. It is necessary that the temperature shall have been very high, in order that the sulphur, when precipitated, produce the brown, soft, elastic, spongy mass known as soft sulphur. Such temperature is attained when the fused liquid, after becoming viscous, resumes its former fluidity.—*Jour. de Chimie Méd.* Oct. p. 610.

Quinine in the Salivation of Pregnancy.—Dr. Mauthner relates that he has found sulphate of quinine, given in two-grain doses, prove completely efficacious in cases in which various other means had been tried without success.—*Schmidt's Jahrb.* Band xcvi. p. 54.

Acute Articular Rheumatism.—Dr. Hauschka recommends, as the best means of abbreviating the duration of acute articular rheumatism, the administration of large doses of iodide of potassium in conjunction with morphia. He gives in the course of the day from 15 grains to 4 scruples of the iodide, with from ½ to 1 grain of morphia. He never has recourse to local treatment when the rheumatism is polyarticular.—*Rév. Méd.* Oct. p. 439.

Iodide of Iron with Glycerine.—M. Leamy recommends, after various trials, the following as the best formula for the preparation of this compound:—Resublimed iodine ʒi., iron wire q. s. Price's glycerine ʒx., dist. water ʒi., or q. s. Mix the iodine with the water in a porcelain capsule, and gradually add the iron wire, stirring constantly. Heat the mixture until it acquires a light greenish colour, then filter the solution into a capsule containing six ounces of the glycerine, taking care to keep the end of the funnel under the surface of the glycerine. Next place the capsule on a water-bath, and evaporate it down to six ounces; add this to the remaining four ounces of glycerine, previously placed in a twelve-ounce bottle, and shake well together. The preparation is of a pale straw colour, ferruginous, but not unpleasant to the taste, is entirely free from sediment, and, with ordinary care, will keep any length of time.—*New York Journal of Medicine*, September, p. 285.

Excipient for Pills.—Mr. Stanislas Martin suggests, as preferable to honey, which has been recently recommended as an excipient for pills, the employment of treacle, which is far easier of manipulation, a much less quantity being required. Pills so prepared last soft and flexible for years.—*Bull. Thérap.* October, p. 344.

Influence of Fat on the Formation of Hernias.—M. Dolbeau presented a specimen to the Paris Anatomical Society, in which a mass of fat at the umbilicus, by exerting traction on the peritonæum, had led to the formation of a sac which contained omentum. Thus, in some cases, fatty development predisposes to the formation of hernias, while in others it may become the agent for their radical cure. M. Verneuil observed that this development of fatty tissue explained the formation of hernia in pregnant women. The distended uterus forces the fat through the natural orifices and enlarges them. In three instances he has found the femoral canal thus dilated by a large cushion of fat; and in one woman he found four fatty prolongations protruding through the inguinal and femoral canals. In case of this fat becoming absorbed, there was nothing to prevent the formation of hernia.—*Bullétins de la Soc. Anat.* 1857, p. 63.

GENERAL CORRESPONDENCE.

FRACTURE OF THE SKULL.

[To the Editor of the Medical Times and Gazette.]

Sir,—In the last number of your Journal you refer to a case of fracture of the skull, with depression, that was in the Westminster Hospital a few years ago. As the case has not been published, I send you (with the permission of Mr. Guthrie, under whose charge the patient was) the notes I made of it. The cast of the man's head may be seen in the Museum of the Westminster Hospital.

Case.—William Clifton, aged 44, was brought into the Westminster Hospital, under the care of Mr. Guthrie, on Monday, July 10, 1854, at five p.m., with symptoms of slight concussion, having been knocked down by a skittle-ball. There was coldness of the surface, a feeble pulse, sickness, restlessness, very little consciousness when roused, and no power of replying to questions, or of putting out the tongue when told to do so. His pupils were neither dilated nor contracted, and no paralysis was observed. His head was shaved, wet cloths applied to it, a hot bottle to his feet, and five grains of calomel given. A depression, corresponding nearly in extent and situation with the temporal fossa, was observed on the left side of the head.

July 12.—No unfavourable symptoms having manifested themselves, it was not thought advisable to trephine or adopt any active measures. The wet lint has been kept to his head, and he is on low diet. He evacuates his bladder and rectum without assistance, and is more conscious and wakeful, understands what is said to him, and tries to put out his tongue when told to do so, but cannot accomplish it. It is observed that the right arm and leg are paralyzed; the arm completely, the leg less so; there is no distortion of the features, or paralysis of the orbital muscles.

14th.—He put out the tongue for the first time, its point deviates very much to the right or paralyzed side; he is perfectly conscious, and can articulate, though somewhat indistinctly.

16th.—He is very cheerful and intelligent; he still continues without the power of moving the arm; but the leg he can move freely. The sensation of both limbs is very defective; but he says that the numbness which affects the leg is confined to the part above the knee, and he is conscious of a hard pinch, but it gives him no pain. The tongue still points to the right.

17th.—Slight movement has returned in the fingers; there is no other manifest change in his condition, unless it be increased intelligence, and a more distinct articulation. He mentioned to-day for the first time, without being asked, that the right side of his face is affected with anæsthesia.

20th.—He complains of feeling not quite so well to-day; has a slight headache, and does not look so lively; he says his thigh is more numb, and the side of his face feels as if pressed on, he cannot move his fingers, but can move his arm at the shoulder and elbow.

21st.—He is better. I examined the pupils carefully in a good light. There is no appreciable difference in their size, and both act, though somewhat more sluggishly than natu-

ral. His articulation does not improve, and he still experiences a difficulty in finding the words he wants to make use of, but when it is suggested to him he expresses his assent by a yes, and a nod of the head.

29th.—Progressing favourably. There is more movement of the right hand and fingers, and less numbness of that side. It is evident, however, that the right pupil is a little more dilated than the left, and though the features are not distorted when quiet, when he laughs they are visibly drawn to the left side; the tongue and articulation remain the same.

September 13.—He has been up and walking about for the last month and walks firmly, without any dragging of the leg, or any feeling of weakness in it; the arm, however, is not so strong as the other, and he cannot raise it up so high above the head, or grasp anything in the hand with as much firmness, as the other. There is no numbness or pain in any part, exeept over the depressed portion of bone after lying some time on it. The features are still slightly distorted when he laughs, and the right pupil is more dilated than the left; the tongue deviates to the right side in much the same degree sa formerly. Articulation is improved; the memory likewise; but it is not so good as before the accident. He has had headaches the last two or three weeks. He has taken no wine since his admission, and has had but one mutton chop a-day.

This patient remained in the hospital till the end of October, when he was discharged cured.

Nov. 7, 1857. I am, &c. C. Holthouse.

AMPUTATION AT THE KNEE-JOINT.

To the Editor of the Medical Times and Gazette.

Sir,—In your Journal for last week, I see a report of some remarks made at the Western Medical and Surgical Society, by Mr. Lane, on amputation at the knee-joint. He is there made to state that "Mr. Syme and Mr. Fergusson had recommended a similar operation, but it differed in the removal of the articular surface, and in the recommendation to make a large posterior flap, which was objectionable on account of the tissues of the calf being unaccustomed to pressure, and unfit for the proposed work."

The first example of this operation occurred when I was dresser to Mr. Fergusson in 1845; and it so happened that I had opportunities years afterwards of occasionally seeing this patient, and so far from the stump being unfit for its proposed work, it was the most serviceable one I have ever witnessed; the patient—a tall, large labourer—being enabled to walk immense distances; and, if I recollect aright, with a wooden leg manufactured out of a broom-stick or some such household article. This case made a very great impression upon me at the time, and I have more than once heard Mr. Fergusson allude to it, in order to show that a stump made in the manner alluded to had proved more serviceable than any other. The operation with the long posterior flap has been performed so rarely in London, that Mr. Lane may not have had an opportunity to examine a patient who has undergone it some time previously. Had he been enabled to see the case alluded to, I feel sure Mr. Lane would be one of the first to give "the tissues of the calf" a better character for being able to bear pressure than he has hitherto done.

I am, &c. Henry Smith.

Caroline-street, Bedford-square.

AMPUTATION AT THE ANKLE-JOINT.

[To the Editor of the Medical Times and Gazette.]

Sir,—Fifteen years ago I proposed a mode of affording relief from diseases that had been held to require amputation of the leg, by removal of the foot at the ankle-joiut. This proposal was favourably received, and has long since been adopted by intelligent surgeons both at home and abroad, as the established procedure in cases proper for its performance. It is easily executed, and proves in the highest degree satisfactory, if done in accordance with certain principles which have been carefully explained, but is difficult and disastrous if performed incorrectly. In lately reviewing a book on Surgery, you quoted the opinion of the author, that this operation should be abandoned on account of the stump having been found unsatisfactory. Now, I have no desire to enter into controversy with that author on any subject whatever. But as you, the Editor of a Medical Journal, have thought proper to publish his opinion as a guide for the Profession, I trust you will permit me to request the correction of a practical error, which would no doubt ultimately yield to the force of truth, but in the meantime, if not contradicted, might occasion much unnecessary suffering. I therefore beg that you will communicate to your readers the following evidence, which will be sufficient to satisfy all who are capable of being convinced, that the stump afforded by amputation at the ankle-joint, when properly performed, is eminently and lastingly serviceable. The duty of a good Surgeon is to discover his errors so as to avoid them, and not to parade their bad results as a reason for relinquishing beneficial treatment. It appears from a published report (Dr. James Arnott, November 1856) that the proportion of deaths after operations for stone in adults in King's College Hospital is *two* in *three* cases; but this melancholy result would surely be no good ground for the general abandonment of Lithotomy.

I am, &c. James Syme.

3, Rutland-street, Edinburgh.

From Mr. Robson, Head Master of the Edinburgh Western Institution, to Mr. Syme.

130, George-street, Edinburgh.
28th October, 1857.

Dear Sir,—It is now ten years since you so successfully performed your ankle-joint operation on my left foot, and I have very great pleasure in here stating a few facts relative to my experience of it.

The operation was performed under the influence of ether, chloroform being then unknown, and without the least pain to me. Within seven weeks I was able to be removed to the country, and in five weeks more I was at my studies as Head Master of the Local Day-school Institution, Young-street. My duties there were onerous, having to be on my feet from nine o'clock a.m., to three o'clock p.m., and having to move about through the rooms of the Institution during the day. I did this daily for three years after the operation, without the least inconvenience.

In the autumn of 1851, I visited Holland, Belgium, and the Rhine, during a great portion of which tour I travelled on foot, with my knapsack on my back, with the greatest ease. My walks varied from eight to ten and sixteen miles, as circumstances required.

From 1850 to 1854 I was a master in the Circus-place School, where I had to stand every day from nine a.m. to three p.m. In addition to this I walked two miles from eleven to twelve o'clock, and three miles at three o'clock.

From 1854 to the present time, my duties have been heavier still; for in addition to standing six hours daily in the Institution, and visiting eight rooms situated on three different floors, I have walked up and down the grounds of Canonmills house for hours daily with my boarders, and frequently played at cricket with them. I have just returned from a tour in the Highlands, a great part of which I have performed on foot with comfort and pleasure to myself. When I mention that I am upwards of thirteen stone, and that I walked through the Duke of Atholl's grounds at Dunkeld, said to be thirty miles in extent, climbed up to the Falls, and ascended various hills, including Ben Ledi, it will be apparent to every person that the operation is a most useful and satisfactory one. The fact is, the more I use my heel, the stronger it seems to become. My duties for the last ten years have led me to stand and walk more and more every year, but I have always felt more and more able to do so.

From 1847 to the present time, the foot has never troubled me in the least, and my general health has been excellent.

I might have said much more, but these facts speak for themselves. I cannot, however, help noticing the superiority of this operation as regards mere appearance, which is of great importance to professional persons. I have had some thousands of pupils since 1847, and am certain that not one of them knew the extent of the operation, so easily can I move about the rooms and go up and down the stairs.

I may mention that I still wear the leathern case and boot, of which you have a pattern.

With a most grateful sense of your professional skill, and of your kindness for many years past,

I am, dear Sir, your most obedient Servant,

(Signed) Thomas W. C. Robson.

Professor Syme.

Letter from Dr. George Wilson, Professor of Technology in the University of Edinburgh, to Mr. Syme.

Edinburgh, October 30, 1857.

My dear Mr. Syme,—You ask me whether the stump of the limb you amputated through the ankle-joint, fourteen years ago, is still serviceable for painless locomotion; and I can only reply emphatically in the affirmative. Since the period when the stump finally healed, and my general health improved sufficiently to allow me to walk in the open air, *i.e.* for some thirteen years, I have been free from all suffering in the mutilated limb. Chronic pulmonary affections and liability to dyspnœa set limits to my pedestrian achievements, and I do not willingly climb long stairs or ascend other considerable heights, but my lameness does not prevent me scaling these when occasion demands, and I am in the habit of standing for hours daily without pain at the time, or subsequent uneasiness. I am thinner now than I was some years ago, and the maimed limb has shared in the emaciation, but the residue of the lost foot is still firm and elastic, and sustains the weight of the body as well as before.

I do not know what more I should add to answer your question; but it may perhaps show what power of locomotion I possess if I mention that I have, within the last four years, climbed Nelson's Monument to study the time-ball, and that last autumn I visited various of the wool and cotton-mills, the print-works, and the large establishments in the south and west of Scotland, and was on foot for four hours on an average continuously at each visit, and under the necessity of ascending and descending endless stairs, and traversing galleries which seemed equally endless.

This summer I spent nearly a fortnight in the museums of London, a week in the Art Treasures Exhibition at Manchester, and nine days at the meeting of the British Association, and in the museums of Dublin. I was sometimes on foot for six successive hours, but though often sufficiently tired at the close of the day, I had no pain in the weaker limb, and continued this work for a week at a time without interruption.

At present, as for years, I walk along the carpetted floor of my dressing-room night and morning with bare limbs and without any stick or support. I can throw my whole weight on the naked stump, and stamp with it on the floor. In truth I often forget that I have lost a foot, and, especially when lying in bed, wonder, on putting down my hand, to find no toes.

I remain, yours very truly,

Professor Syme. (Signed) George Wilson.

Letter from the late Mr. Aitchison, of Dunbar, to Mr. Syme.

Dunbar, June 4, 1846.

My dear Sir,—It gave me great pleasure to hear, by yours of the 2nd inst., that the boy Fargle's case is likely to terminate so satisfactorily.

I sent for the boy Wood, whose life was spared by a similar operation, executed by you two or three years ago (September, 1842, aged 16). I examined most carefully the stump, which was all sound. He had had a renewal of the false foot since he had seen you. He told me he suffered no inconvenience from the stump or the slightest tenderness. He has become a country tailor, and has often ten and fifteen miles a-day to go to his work; still he feels no *discomfort*. He says he, with a few of his young comrades, ran off to see the operations of the North British Railway at Penmanshiel tunnel, and must have walked fully thirty to thirty-five miles, without feeling his amputated limb.

You may rely upon it, nothing can be more satisfactory than this case of the boy Wood; and if Fargle's and all similar cases prove, under your hands, as successful, amputation at the ankle-joint will prove the greatest blessing to the human race, especially to those unfortunates so afflicted.

I am, my dear Sir, yours most faithfully,

(Signed) Thomas Aitchison.

[This was my first case.—J.S.]

DR. MARSHALL HALL'S METHOD OF TREATMENT IN ASPHYXIA.

(To the Editor of the Medical Times and Gazette.)

Sir,—I am directed by the Medical Society of Liverpool to forward to you the following account of proceedings respecting the "Marshall Hall" method of treatment in asphyxia, in the hope that the example of the Liverpool Humane Society may be followed by other similar societies.

The rules laid down by Dr. Marshall Hall having been brought under the notice of the Committee of the Liverpool Shipwreck and Humane Society, the members of that committee gave the subject their careful attention, and feeling some difficulty in deciding a question which could be determined only by Medical evidence, requested the opinion of the Medical Society of this town on the merits of the "Marshall Hall" method as compared with that recommended by the Royal Humane Society.

The subject was brought before the Medical Society by Mr. Waters, October 15, when a resolution, proposed by him and seconded by Dr. Inman, was carried unanimously:—

"That this meeting approves of the plan proposed by the late Dr. Marshall Hall for the restoration of suspended animation, and begs to recommend its adoption by the Liverpool Shipwreck and Humane Society."

A copy of the resolution and of the rules referred to were forwarded to the Chairman of the Shipwreck and Humane Society, and a reply was received from him, stating that the Marshall Hall rules would be printed and circulated with the forthcoming Report of the Society, in place of those formerly recommended. I am, &c.

F. D. Fletcher,

Secretary to the Medical Society of Liverpool.

Medical Institution, Liverpool,
November 2, 1857.

(To the Editor of the Medical Times and Gazette.)

Sir,—I read with some surprise a letter in your last number by Dr. Silvester, relative to the "Marshall Hall" Method of treating Asphyxia (apnœa), to which he has raised certain objections, and proposed a plan of resuscitation, which possesses, he says, numerous advantages.

In defence of the "Marshall Hall" method, the last gift of its illustrious inventor to science and to the world, I would briefly consider, seriatim, the objections of Dr. Silvester.

1. The first of these is, "Expiration is made to precede inspiration, whereas originally expiration is second in order, and not the primary act. In still-born infants, whose lungs never have been inflated, forced expiration is of course, in them, at first impossible."

This, on a superficial view, may appear to some, as it does to Dr. Silvester, an objection. But surely considering the natural elasticity of the parts—the chest in the semi-lifeless body is more likely to draw air in (inspire) *the more readily after compression* of its walls, than without it. The chest of the fœtus even, in its passage through the vagina, is, as a rule, subjected to *strong* compression (imitation of expiration) previous to the *first inspiratory act*, which takes place as the chest expands and recovers itself from the compression.

2. Dr. Silvester next says, "The expansion of the thorax, or inspiration, being dependent on little more than the elasticity of the tissues, it takes place feebly, ineffectually, and slowly, and therefore calls for some more active mechanical aid."

To this I reply, that, in numerous experiments which I made in conjunction with two other gentlemen for Dr. Marshall Hall, *no* "more active mechanical aid" than the "natural elasticity of the tissues" was ever found necessary to effect good inspiration, which in our experiments often exceeded the normal amount of *natural* respiration, as measured by the Pnœometer.

3. Dr. Silvester remarks, "That it is scarcely possible to use the warm bath during the adoption of the postural method."

I of course agree with him that the warm bath can "scarcely," nay, I will say, that it can *not* be used at the same time with the postural method; but if, as appears very doubtful, Dr. Silvester has read the published accounts of the "Marshall Hall" method, he will see it put beyond cavil or controversy, that the very worst measure, the measure *most likely to prove fatal*, is the administration of the warm bath before respiration is re-established; consequently, the impossibility of such administration in Dr. Marshall Hall's method will, to most minds, be one of its greatest recommendations.

4. Dr. Silvester next objects that the "mouth and nose"

are "liable to compression;" "the face" to be "bruised;" "the neck twisted," &c. by the "Marshall Hall" method.

By *forcible* and rough treatment these events might occur; but not otherwise. I have seen the method practised for a very long period without this taking place, and where *life* is at stake, their occurrence would be of little moment.

5. Dr. Silvester's final objection is "That both sides of the chest are not equally inflated; one side only is used to any extent."

To this I would simply reply, that it is at the option of those adopting the method to continue the rotation always on the same side or not. Whether, however, the semi-rotation after pronation be made on alternate sides or not, full and effectual inspiration is obtained, if the "Marshall Hall" method be carried out to the letter.

Dr. Silvester then propounds *his* method, "an imitation of the natural process of respiration"—"the principle for inspiration" being "*forcible* enlargement of the capacity of the chest." Can this process be in harmony with that of nature? The raising the arms, as indicated by Dr. S., if the patient be in the supine position, produces little effect; for the muscles (the pectorals) not being *in action* are relaxed; and if the patient be raised or sitting up and the arms placed as indicated by him, they are, as he says, put "*powerfully on the stretch*" and, far from "a deep inspiration becoming unavoidable," the filling the chest *is rendered more difficult* from the *pressure* of the muscles on its antero-lateral parts.

In regard to the *resumé* of the eight advantages which Dr. Silvester considers his method to possess, I would remark:—

1. That I *cannot* think the same amount of inspiration likely to be produced as that obtained by the postural method, which is founded on a truly physiological basis.

2. That the adoption of the warm bath before good respiration is established must be highly injurious, for its employment hurries blood on to the lungs, and does nothing to purify it.

3. That the patient is more liable to be injured by the "forcible enlargement of the chest," than by the simple pronation and rotation of the "Marshall Hall" method.

4. In conclusion, that I certainly cannot look on points 5, 6, 7, and 8 enumerated by Dr. Silvester as *advantages* in his method. The non-necessity of any apparatus, the inspiration of pure air, and the entire harmony of the process with that of nature, constitute the chief features of the "Postural Method," and the chief *intentions* of its brilliant discoverer, Dr. Marshall Hall.

I am, &c.

A Coadjutor in the Discoverer's Experiments.

Nov. 9, 1857.

PREMONITORY SYMPTOMS IN CHOLERA.

[To the Editor of the Medical Times and Gazette.]

Sir,—On the 24th October you were so kind as to insert a letter of mine, giving an account of my visit to West Ham; and of my inquiry into the rise and progress of the seven persons said to have died there of cholera from the 29th September to the 13th October, without having had a premonitory diarrhœa. On the following week a letter appeared from Dr. Elliot, the Medical Inspector, in which he states that fourteen cases of cholera had occurred at West Ham from the 29th September to the 13th October, and that thirteen of these had no premonitory diarrhœa—that the fourteenth case had a premonitory diarrhœa.

I have seen Dr. Elliot, and he has, with a feeling which does him credit, given me the names and address of these fourteen cases, and all the information he possesses relative to them.

But before I inform you of the result of my researches relative to these fourteen cases, permit me to state what is meant by a premonitory diarrhœa, which does not seem to have been understood in this instance.

The opinion that cholera is a disease which attacks suddenly persons in perfect health, by vomiting, severe purging, cramps, etc., and that diarrhœa and cholera are two distinct diseases, was adopted, and was acted on in all countries up to 1854.

The result of researches which had been undertaken to ascertain whether diarrhœa and cholera are two distinct diseases, and whether cholera invariably attacks suddenly persons in perfect health, by vomiting, severe purging, cramps, etc., or whether there is a symptom, or a train of symptoms, which marks the first deviation from health, and invariably precedes an attack of vomiting, severe purging, cramps, etc., was made known to the Medical world in 1853, and pointed out three important important pathological facts:—

1. That every case of cholera, that is, vomiting, severe purging, cramps, etc., is invariably preceded by a diarrhœa, for a few hours, or for a few days, or for a few weeks.

2. That consequently diarrhœa and cholera are not two distinct diseases, but two stages of the same disease; and

3. That it is in the diarrhœal stage that Medical aid, scientifically administered, can arrest the progress of this diarrhœa—can prevent the developed stage of cholera, that of vomiting, severe purging, cramps, etc., and can thereby save life.

And in a letter addressed to the Registrar-General, dated November 7, 1853, it was pointed out that the interval of time which elapsed from the first liquid evacuation to the first vomiting, severe purging, cramps, etc., was called the premonitory stage or the premonitory diarrhœa, implying thereby that this diarrhœa is a warning that an attack of vomiting, severe purging, cramps, etc.,—that an attack of cholera is imminent.

It may here be stated that in the outbreak of cholera in 1854, eight Hospitals here in London, and that every Medical establishment in England and Scotland where the Medical officers had taken pains to inquire at the bedside into their patient's case, reported to the General Board of Health that every case of cholera admitted into their establishment had a premonitory diarrhœa; that is, that a time had elapsed from the first liquid evacuation to the first vomiting, severe purging, cramps, etc.; and by referring to the Registrar-General's Weekly Return of Births and Deaths for 1854, it will be also seen that where the Medical attendant did his duty to his patient, he found that a diarrhœa for a longer or shorter period of time preceded the attack of vomiting, severe purging, cramps, etc., and consequently the invariable existence of a premonitory diarrhœa in cholera is admitted by all who have a right to have an opinion on this question; and the cases of cholera which have occurred at West Ham come in support of this opinion; for thirteen of these cases had a premonitory diarrhœa, either for a few hours, or for a few days, or for a few weeks. The fourteenth case was not one of cholera.

In my letter which appeared in the *Medical Times and Gazette* of the 24th of October last, I gave you a short account of the six cases of cholera which had died, and I pointed out to you that these six persons had had each a premonitory diarrhœa; and that the seventh case, reported as one of cholera, was not a case of cholera—that of Mrs. Palmer.

At present, permit me to give you the result of my inquiries into the rise and progress of the disease in the seven other cases of cholera. Six of these have happily survived; one has sunk in consequence of the disease since my last letter.

The first case, which occurred on the 29th September, was a child 4½ years old. His mother, Mrs. Dixson, informed me that he had had diarrhœa for at least two days previous to the attack of vomiting, severe purging, cramps, etc.

The second case was that of Mrs. Dixson herself. She said that she had diarrhœa for about a week previous to the attack of vomiting, severe purging, cramps, etc.

The third case was that of Mrs. Dixson's second child. She had diarrhœa for a day before being attacked with vomiting, severe purging, cramps, etc.

The fourth case was that of Mrs. Sampson's child. His mother says that he had diarrhœa for twelve or fourteen hours before being attacked with vomiting, severe purging, cramps, etc.

The fifth case was that of —— Champness, a boy, aged 16. He and his mother informed me that he was attacked early in the morning with diarrhœa, that this diarrhœa continued for above twelve hours, when the vomiting, severe purging, cramps, etc., came on.

The sixth case was that of Mrs. Mansfield. Unfortunately I arrived at her house at the moment she had lost her second child. But here is what I could collect. That she was walking before her door at about nine a.m. with her child in her arms; that she felt suddenly cold and faint, so much so that she could with difficulty get into the house. She then felt sick, had an evacuation, shortly after vomited, was again purged, and had cramps. She obtained Medical assistance,

and by three p.m. was free from sickness, purging, and cramps. She did not remember whether she had a passage in her bowels in the morning, previous to her feeling faint. The day before she had two evacuations.

The seventh case was the second child of Mrs. Mansfield, aged 14 months. She had a diarrhœa off and on for about a month, which was thought to depend on teething. She was under Medical treatment for this diarrhœa when the vomiting, severe purging, cramps, etc., came on. She also had Medical aid immediately, and the urgent symptoms were arrested, but consecutive fever came on, and she sank, after lingering for nearly three weeks.

In conclusion, therefore, you will see, both from my letter of the 24th October, inserted in the *Medical Times and Gazette* of that date, and from the above statement of these seven cases, that there were thirteen cases of cholera from the 29th September to the 13th October, and that each of these had a premonitory diarrhœa for a few hours, or for a few days, or for a few weeks, and that the fourteenth case was not one of cholera; that is, the case of Mrs. Palmer.

I am, &c. D. Macloughlin, M.D.
Member of the Legion of Honour.

London, November 9, 1857.
34, Bruton-street, Berkeley-square.

REPORTS OF SOCIETIES.

THE PATHOLOGICAL SOCIETY.

Tuesday, Nov. 3.

Dr. Watson, President, in the chair.

(Concluded from page 487)

Dr. Ranke exhibited

THE LUNGS OF THREE SHEEP AFFECTED WITH A FORM OF DISEASE NOW VERY PREVALENT AMONG THOSE ANIMALS.

The lungs are studded with a great number of gelatinous looking bodies, mostly of a yellowish colour, varying in size from that of a mustard-seed to that of a bean. The smallest are generally roundish and almost transparent, sometimes they show an opaque white point in the centre, and others are nearly black, resembling small shot. The larger ones are mostly irregular in outline, opaque, and of a dirty yellowish colour. Consistence varying, sometimes soft, sometimes almost cartilaginous, and occasionally hard and chalky. Pulmonary tissue between these bodies perfectly permeable to air. All these bodies contain the brood of a species of entozoon (Strongylus filaria) in different stages of development. The large irregular bodies contain the old female worm and countless ova, and young worms in their earliest stage, mixed up with great quantities of cells resembling pus corpuscles, compound granular cells, granular matter, etc.; while the small roundish bodies form a pseudo-cyst, and contain, coiled up in the same kind of exudation matter, one young worm attaining to maturity. The size of these solitary young worms greatly varies; the smallest are found in the semi-transparent bodies, and the largest, being nearly full grown, and having their genital organs developed, are found in the dark cysts. The exudation matter in the cysts seems to form the food of the young worm.

Dr. Ranke stated that he was not aware that any description of this development of the Strongylus existed, although the worm in its adult state, when it is found in the bronchi and trachea of the lungs of sheep, goats, calves, etc., has been long known. Mr. Simmonds, Professor of Veterinary Surgery at the Veterinary College, Camden-town, with whom Dr. Ranke had communicated on the subject, had, however, informed him that he himself had some time ago observed the ova and young worms in the larger patches. The disease seems to be just now exceedingly common; of eighteen lungs which Dr. Ranke examined, there were only two or three in a healthy state. As regards the effect of lungs so diseased being used for food, Dr. Ranke had made one experiment on a cat, but with negative result. The animal was exclusively fed on such lungs for a fortnight, and then killed. It had showed no sign of disease during life, nor were any traces of the worms to be discovered either in the intestinal canal, or in any other organ. In the meat of sheep affected with the above described disorder of the lungs, Dr. Ranke failed to discover the entozoon. Dr. Ranke afterwards showed some drawings and microscopic specimens of the worm in its different stages.

Mr. Spencer Wells read a note from Professor Symonds of the Royal Veterinary College, to the effect that he had often met with the same disease in the lungs of animals. In the lungs of lambs it was very common to meet with nests of the ova and young of Filaria bronchalis.

Dr. Leared suggested that the cretaceous deposits often found in the lungs of sheep might possibly be often derived from the cretaceous degeneration of these parasites.

After some further discussion, in which the President, Dr. Ranke, Dr. Ogier Ward, and Mr. Hutchinson took part, the subject dropped, the time of the Society being expired. Several specimens were unavoidably deferred to the next meeting.

MEDICAL NEWS.

Apothecaries' Hall.—Names of gentlemen who passed their examination in the Science and Practice of Medicine, and received Certificates to Practise, on October 29:—

Buss, Henry.
Earle, John, Ripon, Yorks.
Hughes, Thomas, Holyhead.
Lander, James, Glasgow.
Tench, Edward Beavan, Hereford.

Also, on November 5,

Chipp, John, Shrewsbury.
Chippindale, Walter, Tonbridge.
Gould, William, Denton.
Williams, Charles Rice, Birmingham.

Royal College of Surgeons.—The following gentlemen, having undergone the necessary examinations for the diploma, were admitted members of the College at the meeting of the Court of Examiners on the 6th inst.:—

Butterfield, Harris, Nantiglo, Monmouthshire.
Clarke, Arthur, Westcott, near Dorking.
Coulson, Walter John, St. Mary's Hospital.
Cuppage, James Greer, Lurgan, co. Armagh.
Faxon, Samuel Walton, Westminster Hospital.
Hyde, William Edward, Ledbury, Herefordshire.
Millar, William, the Army.
M'Mullin, John, Castle Dawson, co. Derry.
Spence, Richard George Clarke, Otley, Yorkshire.
Walters, John, Hyde-park-gate South.

At the same meeting of the Court Messrs. Philip William Govett, of the Royal Naval Hospital, Plymouth, a member of the London College, July 16, 1849; Benjamin Crabbe, of Greenwich Hospital, a member of the Edinburgh College, March 7, 1854; David Porteous, of the Royal Naval Hospital, Plymouth, and Simon Armstrong Willis, of Her Majesty's ship Victory, both licentiates of the Faculty of Physicians and Surgeons, Glasgow, their diplomas bearing date respectively March 2 and March 5, 1852, passed their examinations for Surgeons in the Royal Navy.

DEATHS.

Clarke.—November 9, in Dublin, Sir Arthur Clarke, M.D., aged 84.

Davy.—On the 5th instant, at his residence, Kimmage Lodge, co. Dublin, in the 73rd year of his age, Edmund Davy, F.R.S., Professor of Chemistry to the Royal Dublin Society. Mr. Davy was a native of England, and was cousin to the late Sir Humphry Davy, Bart. The following resolution, in reference to his death, was passed at the first meeting for the session 1857-8, of the Committee of Chemistry of the Royal Dublin Society:—"Resolved,—That this Committee desire to record their deep sense of regret at the death of Mr. Edmund Davy, F.R.S. M.R.I.A. Hon. Mem. R.D.S., who filled the office of Professor of Chemistry to the Society during a period of thirty years, with such credit to himself and benefit to the public. His scientific attainments, his unremitting attention to his public duties, his numerous discoveries in chemistry, his high moral character, in every way adapted him for the position

he occupied, and will serve to perpetuate his memory as an eminent chemist and a successful teacher, as well as one who devoted a lengthened period of his life to the promotion of science."

FRECKLETON.—On the 3rd inst. at Cheltenham, George Freckleton, M.D., aged 65; late of Liverpool.

KNAPP.—On the 8th inst., at 55, Inverleith-row, Edinburgh, John Knapp, M.D.

NASMYTH.—Nov. 8, at 5 Charlotte-square, Edinburgh, Robert Nasmyth, Surgeon Dentist, late of 42, Brook-street, London, second son of Robert Nasmyth, Esq., F.R.C.S.E.

WHITMARSH.—Oct. 20, at Slinton, Sussex, George Whitmarsh, Surgeon, R.N., late of Downtown, Wilts, aged, 46.

APPOINTMENTS.

Mr. W. Cadge was unanimously elected Surgeon to the Norfolk and Norwich Hospital, November 7, 1857.

MR. S. E. PROCTOR, M.R.C.S. L.A.C. late House Surgeon to the Southern Hospital, Liverpool, and formerly Assistant and House Surgeon, Queen's Hospital, Birmingham, has been elected Resident Surgeon to the Kent County Ophthalmic Hospital, Maidstone.

DR. JAMES OGSTON has been appointed the First Professor of Medical Logic and Medical Jurisprudence in the Marischal College and University of Aberdeen.

PROGRESS OF CHOLERA.—From the 20th September to the 11th October, 208 cases have occurred at Dantzic, of which 109 have proved fatal. A third part of the cases with only a twelfth of the mortality occurred among the military. The entire number of persons who have fallen a sacrifice to cholera in the province of Dantzic, during the seven years in which it assumed an epidemic form, (1831, 7, 1848-9, 1852-3, and 5,) amounted to 73,000; no other province of the Prussian monarchy having suffered to the same extent. In the district of Königsberg 988 cases have occurred to the end of September, of which number 526 died, 320 recovered, and 283 remained under treatment. At Stockholm to the 9th of October, 818 cases have occurred, with 392 deaths.

MILITARY SURGERY IN INDIA.—"The enemy now commenced firing live shells well heated, with the intent of setting fire to the tents of officers in the compound, as also to the thatched barrack, which, though hastily covered over with tiles, was not proof against fire. The tents, therefore, had all to be struck, as several had thus been burnt; and at last, on the 13th of June, the barrack also took fire. It was about 5 p.m., and that evening was one of unspeakable distress and trial; for all the wounded and sick were in it, also the families of the soldiers and drummers. The fire took on the south side of it, and the breeze being very strong, the flames spread out so quickly, that it was a hard matter to remove the women and children, who were all in great confusion, so that the helpless wounded and sick could not be removed, and were all burnt down to ashes (about forty or upwards in number). The whole of the medicines were also there, and shared the same fate. All that the doctors could save was a box or two of surgical instruments and a small chest of medicines, so that after that was expended the sick could get no medicine. It was perfectly impracticable to save any of the wounded or the medicines, in consequence of the insurgents collecting in very large bodies in the adjacent compounds and buildings with their muskets. It is beyond description to attempt to give a detail of the innumerable troubles and distresses to which all in the entrenchment were subjected. The poor wounded and sick were objects of real commiseration, for their state was exceedingly wretched. The stench also from the dead bodies of horses, and other animals that had been shot in the compound, and could not be removed, as also the unusually great influx of flies, rendered the place extremely disagreeable."

SUBJECTS IN VIENNA.—During the last fortnight the Medical professors and students at the General Hospital of Vienna have been in a state of great excitement and irritation. The Archbishop of Vienna not long since gave orders that all the persons who died in the various Hospitals, and in the Lying-in and Foundling establishments, should be buried without either post-mortem examination or dissection; and the consequence of the measure is that, during the last ten or fifteen days, there has only been one "subject" in the great dissecting halls of the General Hospital. Vienna was proud, and had good reason to be proud, of its Medical School, but the Concordat has given into the hands of the clergy the power to ruin its reputation. According to a decree of Joseph II., the body of every person who died in the public Hospital was to be opened or dissected, as the case might be; but the imperial ordinance has, *de facto*, been abrogated by the Cardinal Archbishop of Vienna.—*Times Correspondent*, November 10.

MEDICAL BENEVOLENT FUND SOCIETY OF IRELAND.—The City and County of Cork Branch of this valuable Institution has obtained the patronage of Lords Bandon, Bantry, Shannon, Carberry, and Middleton, and of the Ladies Bandon, Carberry, and Middleton, which, it is hoped, will aid in bringing the claims of widows and orphans of Medical men (more especially of such as held public appointments on miserable salaries) before the general public, and securing contributions as well from the latter as from the Profession at large. The Honorary Secretary and Treasurer has acknowledged donations of five pounds from Lord and Lady Carberry, three pounds from Lord and Lady Middleton, and one pound from Lord Bantry.

INSPECTION OF APOTHECARIES' AND DRUGGISTS' SHOPS IN IRELAND.—We learn from *Saunders's News Letter* that the inspectors and examiners of apothecaries shops for the city of Dublin, and of the district within a boundary of seven miles, appointed by the College of Physicians under authority of Act 1 Geo. III. c. 24, have just presented their 118th annual report to the College. The number of establishments visited within the northern district of Dublin was, of apothecaries, 37, of druggists, 14; on the south side, 72 apothecaries, and 30 druggists; and returns detailing the condition of each establishment, and the quality of the drugs and medicines contained in each, have been duly made to the College. The inspectors for the north side of the city have classed the shops into three divisions—those forming the first class consisting of twenty shops, all of the highest character, and complete in every arrangement necessary for ensuring accuracy in dispensing. The second class is characterised generally by being less complete in these particulars, and also in a deficiency in the stock of medicine, but on the whole safe as dispensing establishments; of these the inspectors have returned the names of ten. The third class, which includes but three shops, are in every respect defective, the attendance of a qualified assistant being in some cases wanting, while the general condition of the shops and the several appliances, such as measures, scales, weights, &c., used in compounding medicines are either wanting or are so imperfect as to be for most purposes worse than useless. The inspectors for the south side of Dublin also divided the apothecaries' shops into classes, reporting the condition of each individual establishment. They remarked generally that many are in first-class order, and have scarcely anything to be desired in the way of improvement, while those establishment of an inferior character have decreased in number within the last few years—an improvement to be attributed mainly to the annual inspection conducted by the College of Physicians. The chief defects noticed in the inferior establishments were their dirty condition, the defective state of the scales used in dispensing—these being in some instances covered with rust, and having the remains of powders adhering to them, while in others the balance was so defective that several grains failed to turn the beam. In some shops the supply of medicine was very limited, while in others their quality was defective. Taking these circumstances into account, the inspectors for the south side arranged the apothecaries' shops they examined into four classes, and reported that the members of the College could not, with safety to their patients, permit their prescriptions to be compounded in any shop placed in the fourth class. The first class included 21 shops, the second 29 shops, the third 14 shops, and the fourth 8 shops. Our readers may recollect that some time since the College issued several orders whereby apothecaries were directed to keep and dispense all medicines intended for external use, and of dangerous activity, in angular shaped vessels, and all intended for internal use, as well as those which are of an innocuous nature, in round vessels. As regards the observance by apothecaries of these directions, the inspectors for the north side reported that of the 37 shops examined by them, those directions of the College were regularly observed in 24, that is, in about two-thirds of the whole, while the report of the inspectors for the south side is stil.

more remarkable; that of the 21 shops enumerated in the first-class the directions are followed in all but four, the proprietors of which, however, informed the inspectors that it was their intention to carry them into effect as regards dispensing. Of the 29 shops named in the second class, these precautions are carried out in 18. Of the 14 shops contained in the third-class, they are adopted in four; and of the 8 shops contained in the fourth-class, they are followed in but one. These results are, one the whole, very gratifying, as it shows that the proprietors of those establishments which are characterised by completeness in their appointments evince a desire to adopt, with other improxements, any suggtstion or recommedation calculated to afford security to the public.

GRANULAR LIDS.—Dr. Pitcher, of Detroit, applies with a camel-hair brush a solution of iodide of zinc: ℈i to ʒi to the ounce of water. The application is not to be repeated oftener than every second or third day. We are now using the perchloride of iron in these cases, and have been much pleased with the results. Before using it, we freely scarify the lids. Even in its undiluted state, it has produced but trifling pain.—*Western Lancet.*

THE MOORFIELDS OPHTHALMIC HOSPITAL.—Great improvements are still in progress in the building accommodation at this Hospital. A museum and curator's room have been built, and additional waiting-rooms for patients added. The ophthalmoscope room also has been found too small for the wants of the clinical class, and a larger one is in course of erection, which will allow three or four to work at the same time.

SERIOUS CHARGE AGAINST A SURGEON.—A surgeon named Andrew Halliday Carmichael, recently practising at Mexborough, near Doncaster, has undergone several examinations before the West Riding magistrates at the latter town on the charge of procuring abortion on the person of a young woman who has been in his service as housekeeper. The prosecutrix appeared before the bench for the first time on Saturday, but was in a very debilitated condition and unable to stand. The proceedings were conducted strictly in private, on the ground that the publication of the proceedings might tend to defeat the ends of justice: but after an examination of upwards of five hours the prisoner was fully committed for trial. He was removed to Wakefield prison in the evening, in a very dejected condition, he having suffered much mental anguish since his incarceration at Doncaster. Bail was refused.

CITY OF DUBLIN HOSPITAL, UPPER BAGGOT-STREET.—The Winter Session 1857-8, was formally opened in the above Hospital on Monday, November 9, with a very eloquent address by Dr. Beatty, ex-Professor of Midwifery to the Royal College of Surgeons in Ireland. Dr. Beatty alluded especially to the circumstance that precisely a quarter of a century had elapsed since the Hospital was established, in November, 1832, at the expense of the Professors of the College, for the purpose of combining clinical with theoretical teaching, and of rendering the school of the College complete in every department. The address was listened to with much interest by a crowded and distinguished audience.

ATTENDANCE ON THE SICK PASSING THROUGH EGYPT.—We are glad to learn that the authorities at the War-office have it in contemplation to send a large body of stewards, wardmasters, and orderlies of the Medical Staff Corps to Alexandria, for the purpose of being employed in the transit of the troops who are proceeding overland to India, and also of rendering assistance to the sick and wounded soldiers who are returning to England.

UNIVERSITY OF LONDON, 1857.

THE following is a list of the candidates who have passed the recent second examination for the degree of Bachelor of Medicine.

FIRST DIVISION.

Francis Edmund Anstie	King's College.
Francis Thomas Bond, B.A.	Queen's College, Birmingham.
Uriah Perrin Brodribb, B.A.	Guy's Hospital.
Thomas Buzzard	King's College.
Arthur John Cribb	Middlesex Hospital.
J. Lempriere De la Garde	St. Bartholomew's Hospital.
St. John Edwards	University College.
James Fawcus	University College.
William Tilbury Fox	University College.
Samuel Giles, B.A.	Guy's Hospital.
William Price Jones	University College.
John Zachariah Laurence	University College.
George William Lawrence	King's College.
Alfred Meadows	King's College.
Frederick Moon	Guy's Hospital.
William Miller Ord	St. Thomas's Hospital.
John Lumsden Propert	King's College.
W. Basnett Ramsbotham	University College.
Michael Thos. Sadler, B.A.	St. Bartholomew's Hospital.
William Turner	St. Bartholomew's Hospital.
Thomas James Walker	University of Edinburgh.
Antony Whitford	King's College.
Frederick William Wilson	Westminster Hospital.

SECOND DIVISION.

Henry Carnley	Hull and East Riding.
Michael Castaneda	University College.
C. James Devonshire, B.A.	King's College.
H. Stavely Thaddeus King	King's College.
Augustus Prout	King's College.
H. Montague Duncan Smith	University College.
John Way	King's College.

VITAL STATISTICS OF LONDON.

Week ending Saturday, November 7, 1857.

BIRTHS.

Births of Boys, 859; Girls, 823; Total, 1682.
Average of 10 corresponding weeks, 1847-56, 1536·6.

DEATHS.

	Males.	Females.	Total.
Deaths during the week	572	594	1166
Average of the ten years 1847-56	..	..	1039
Average corrected to increased population	...	..	1143
Corrected average for corresponding week in ten years 1847-56	527·0	511·5	1038·5
Deaths of people above 90	..	..	6
Deaths in 13 General Hospitals	28	22	50

DEATHS REGISTERED DURING THE WEEK.

CAUSES OF DEATH.	In the Week ending Saturday, Nov. 7, 1857. Deaths of Persons. AT ALL AGES.	Under 20 Years of Age.	At 20 and under 40 Years of Age.	At 40 and under 60 Years of Age.	At 60 and under 80 Years of Age.	At 80 Years of Age and Upwards.	Averages of Temperature and Deaths in 10 Weeks.
Mean temperature	Mean temp. 53°8						46°6
ALL CAUSES	1166	561	185	161	225	34	1038·5
SPECIFIED CAUSES	1161	558	184	160	225	34	1026·6
DISEASES:—							
1. Zymotic Class	238	190	26	13	6	3	272·9
2. Dropsy, Cancer, and others of uncertain seat	63	8	12	14	27	2	42·4
3. Tubercular Class	179	62	76	32	9	..	166·0
4 Of Brain, Nerves, etc.	112	45	6	14	44	3	108·5
5. Of Heart, etc.	46	7	10	10	18	1	41·8
6. Of Respiratory Organs	261	136	18	44	57	6	176·9
7. Of Digestive Organs	79	26	19	15	19	..	56·5
8. Of Kidneys, etc.	16	..	3	8	5	..	12·3
9. Of Uterus; viz.—Puerperal Disease, etc.	11	..	8	2	1	..	7·9
10. Of Joints, Bones; viz.—Rheumatism, etc.	6	1	2	1	2	..	8·7
11. Of Skin, etc.	2	2	..	..	..	..	1·7
12. Malformations	1	1	..	..	..	..	2·7
13. Debility from Premature Birth, etc.	34	34	..	..	..	..	27·4
14. Atrophy	28	24	..	..	4	..	28·6
15. Age	45	..	..	..	28	17	40·7
16. Sudden	9	4	1	3	..	1	6·6
17. Violence, Privation, etc.	31	18	3	4	5	1	25·0
CAUSES NOT SPECIFIED	5	3	1	1	..	..	11·9

DEATHS IN SUB-DISTRICTS FROM EPIDEMICS.

	Population. 1851.	Measles.	Scarlatina	Hooping-Cough.	Diarrhœa.	Cholera.	Typhus.
West	376,427	4	15	3	4	..	10
North....	490,396	2	7	9	5	..	7
Central ..	393,256	10	11	12	4	1	9
East	485,522	2	15	7	3	1	18
South	616,635	5	4	9	11	..	10
Total..	2,362,236	23	52	40	27	2	54

METEOROLOGY.

From Observations at the Greenwich Observatory.

Mean height of barometer	29·748 in.
Mean temperature	53·8
Highest point of thermometer	54·3
Lowest point of thermometer	43 9
Mean dew-point temperature	52·1
General direction of wind	N.E.
Whole amount of rain in the week	0·49
Amount of horizontal movement of air in the week ...	200 miles.

TO CORRESPONDENTS.

Dr. Pavey's paper on the Action of the Heart shall appear next week if possible.

B.T.D. had better communicate his real address, and a private note shall be sent.

CURIOSITIES OF ADVERTISING.

"DEAF MUTES.—Children so afflicted can now be taught to speak distinctly, and enjoy ordinary conversation, with every probability, in some cases, of having the hearing restored; for proof of which references will be given to many of the nobility who have been cured by this method, and who attribute all the happiness of life they now enjoy to this great discovery. For further particulars, address Dr. Colston, 1, Park-place, South Hackney."

Mr. Cooper's note on Typhus and Typhoid is in type.

Mr. Piper.—We have read the evidence in the case, and can only express our regret that any such interference with his treatment should have occurred.

DIRECTORIES AND OFFICIAL LISTS.

TO THE EDITOR OF THE MEDICAL TIMES AND GAZETTE.

SIR,—Will you oblige me by inserting in your Journal the accompanying note from the Secretary of the Edinburgh University? I was lately applied to by the Editor of the "London and Provincial Medical Directory" for an explanation of the omission of my name among the list styled official, of graduates for 1842. My reply to that polite inquiry, explaining the probable cause of the omission, should have satisfied me, did I not believe that many others are involved in the like suspicion, and that I think it right the Medical public should be made acquainted with the amount of credit attached to this so-called official list of the Edinburgh University.

The usual time for conferring degrees is in August; exceptions occur, and sometimes, upon petition and from adequate causes, graduation is effected at other times.

A list of the ordinary graduates is published in some of the Medical Journals, and is probably correct as far as these are concerned, and from this no doubt the so-called official list is compiled. But this will not comprise those "extraordinary" graduations which occasionally occur; that it is incomplete and not to be relied on will be evident from the accompanying letter. Suspicious critics had better suspend their judgment, and yield an academic faith to any list which has not the sanction of the University authorities. I am, &c.

JOHN M'DONNELL, M.D. Edin.

Milton-road, Stoke Newington, Nov. 7, 1857.

"College, November 5, 1857.

"SIR,—In reply to your letter I beg to inform you that the only official list of the Medical Graduates of the University of Edinburgh lies in the Library of said University, and in that list you are stated to have graduated on the 26th November, 1842.

"I remain, your obedient Servant,

"John M'Donnell, M.D. Edin. "A. SMITH, Secretary."

Dr. Habershon's paper on the Treatment of Pneumonia shall appear in an early number.

Mr. Newman.—No form of pessary is applicable to such a case. Astringent injections and a perineal band are indicated.

Dr. Griffith.—The matter shall be attended to.

A CIRCULAR.

21, Chrisp-street, Poplar New Town.

Mr. Ambrose Nelham, Surgeon and Accoucheur, respectfully begs to inform the inhabitants of Poplar New Town and its vicinity that he has succeeded to the business of Mr. William Smith, Surgeon. He has incurred considerable expense in improvements, and an entire fresh supply of Pure Drugs, by which he hopes to obtain the support of the neighbourhood in which he now resides; and by a knowledge of his Profession, and attention to its duties, to obtain that amount of support which will not only be grateful to his own feelings, but advantageous to those who may at any time be desirous of availing themselves of his professional skill.

The charges will be such as to be within the compass of the large mass of operative classes by whom he is surrounded.

N.B.—Midwifery attended sufficiently low to be consistent with professional remuneration.

Mr. Musket's case of Opium Poisoning shall appear.

F.R.C.S.—The composition of Chlorodyne is kept secret.

Erratum.—In the letter of our Irish correspondent last week Mr. Ledwich's name was printed Sedgwick by mistake.

THE READY METHOD.

TO THE EDITOR OF THE MEDICAL TIMES AND GAZETTE.

SIR,—Having found objections to Dr. M. Hall's ready method (some of which your correspondent of last week enumerated), I believe the following "method" avoids them all:—

After the necessary preliminary of making the passages free, etc., have been attended to, the patient is to be so placed on a chair, that the lower part of the scapula will rest on the top of the chair's back.

Next, the patient's hands are to be raised and folded on the occipital bone, and the operator's hand is to be placed on them, so as to retain them in their place.

Next, the operator's other hand is to be placed on the patient's chin, and the next step is to bend the patient backwards (by means of the hand on the chin) until his chest forms an arch, when it will be found that full inspiration has taken place.

Next, the hand on the chin is to be placed on the lower part of the sternum, and the patient is to be bent forwards (by means of the hand on the back of the head), at the same time firm pressure is to be applied to the sternum, when complete expiration will take place, especially if the patient's hands are let to fall from the occipital.

As the *modus operandi* will instantly be seen, comment is unnecessary. I am, &c. J. R.

COMMUNICATIONS have been received from—

Mr. WORDSWORTH; Dr. G. JOHNSON; Mr. HOLTHOUSE; Mr. STATHAM; Mr. TOYNBEE; Dr. PAVEY; Dr. HABERSHON; Dr. CAMPS; Dr. VINER; Mr. JEFFREYS; Mr. FLETCHER, Liverpool; Mr. EWINS; Mr. BRADY; Mr. DAVISON; Dr. R. WOOLLASTON; Dr DUPISPLED; Mr. GRAHAM; Mr. DICKINSON; Dr. M'DONNELL; Dr. ARMSTRONG; Dr. CORNAZ, Neufchatel; Mr. GREENWOOD; Mr. ROBINSON; Mr. URQUHART; Mr. HUNTER; Mr. J. SMITH; Mr. W. PARRY; Dr. BRYDEN; Dr. STILLMAN; Mr. W. PINDER; Messrs. WOOD; Dr. KINSEY; Dr. DUIGAN; Mr. J. ROSE; Mr. MANN; Mr. M. FRANK; Dr. BAINES; Mr. M'DERMOTT; Mr. NEWMAN; Mr. COOPER; Mr. LEWIS; Dr. B. F. BARKER.

APPOINTMENTS FOR THE WEEK.

14. *Saturday (this day).*

Operations at St. Bartholomew's, 1½ p.m.; St. Thomas's, 1 p.m. King's, 2 p.m.; Charing Cross, 1 p.m.

MEDICAL SOCIETY OF LONDON, 8 p.m.: J. Bishop, F.R.S., "On the Pathology and Treatment of Carbuncle."

GUY'S HOSPITAL SOCIETY, 7 p.m.: Mr. Bacon: "On Hydatid Disease of the Liver."

16. *Monday.*

Operations at the Royal Free Hospital, 1 p.m.; Metropolitan Free Hospital, 2 p.m.; Orthopædic Hospital, 3 p.m.

17. *Tuesday.*

Operations at Guy's, 1 p.m.; Westminster, 2 p.m.

18. *Wednesday.*

Operations at University College Hospital, 2 p.m.; St. Mary's, 1 p.m. Orthopædic Hospital, 3 p.m.

19. *Thursday.*

Operations at St. George's, 1 p.m.; Middlesex, 12½ p.m.; Central London Ophthalmic, 1 p.m.; London, 1½ p.m.

HARVEIAN SOCIETY, 8 p.m.: Dr. Hamilton Roe: "On the Therapeutical Treatment of Serous Effusions into the Pleura, and on the Constitutional Conditions which render Paracentesis Thoracis the best remedy."

20. *Friday.*

Operations at the Moorfields Ophthalmic, 10 a.m.; Westminster Ophthalmic, 1½ p.m.; Great Northern. 2½ p.m.

WESTERN MEDICAL AND SURGICAL SOCIETY, 8 p.m. Dr. Cahill: "On cases of Constitutional Syphilis which show the evil resulting from the non-mercurial plan of treatment."

EXPECTED OPERATIONS.

King's College Hospital.—The following operations are expected at this Hospital to-day (Saturday), at 2 o'clock:—

Removal of necrosed bone from femur, and removal of epithelial cancer from face, by Mr. Fergusson.—For fistula in ano, by Mr. Bowman.

ORIGINAL LECTURES.

A COURSE OF LECTURES
ON THE
NATURE AND TREATMENT
OF THE DISEASES OF THE EAR,
DELIVERED AT
St. Mary's Hospital Medical School.

By JOSEPH TOYNBEE, F.R.S.

Aural Surgeon to St. Mary's Hospital, Lecturer on Aural Surgery at St. Mary's Hospital Medical School, and Consulting Aural Surgeon to the Asylum for the Deaf and Dumb.

LECTURE XIX.
SUPPLEMENTARY LECTURE ON THE ARTIFICIAL MEMBRANA TYMPANI.

I am not satisfied that in my lecture on the artificial membrana tympani, published in the *Medical Times and Gazette* of April 25, I have done justice to Mr. Yearsley's treatment of perforate membrana tympani by the use of cotton wool. I will, therefore, try to place the subject in its just light.

In the year 1838 Mr. Yearsley published a pamphlet, entitled, "On a new Mode of treating Deafness when attended by partial or entire loss of the Membrana Tympani, associated or not with Discharge from the Ear." This was copied from papers in the *Lancet*, and here are the concise facts. Having found a patient with perforate membrana tympani greatly improved by the introduction into the orifice of a spill of wet paper, Mr. Yearsley ingeniously suggests the insertion of a piece of cotton wool into the orifice, in all cases of perforate membrana tympani. So far, undoubted credit was due to Mr. Yearsley; for, although Jhard, Deleau, and Tod had spoken of the benefit derived from the use of foreign substances in similar cases, they did not urge the universal application of them. Tod, however, went so far as to use these words:—He describes "The relief derived from the mere introduction of a little lint into the external meatus in those cases where the membrana tympani has been ruptured or destroyed by disease. So great, indeed, is the improvement which takes place from the application of this simple remedy, that patients appear astonished on being so easily relieved." —*Anatomy and Physiology of the Organ of Hearing*, pp. 105, 106; 1832.

I will now quote Mr. Yearsley's words: they are, "A small piece of wool, differing in size according to the case, and fully moistened in water, is introduced through the speculum to the bottom of the meatus, and adjusted superiorly, inferiorly, anteriorly, or posteriorly, according to the situation of the perforation and other circumstances (what are they?) connected with the case, *but care must be taken that the entire opening be not covered*, otherwise the experiment will not succeed." Mr. Yearsley also says, "It is far from my wish to discourage the attempts of others to place aright these magical bits of wool," but truth compels me to add, that, simple as it may appear, it is an operation requiring the most delicate hand to manipulate with success, which great experience only can confer." In the year 1852 Mr. Yearsley announced the opinion that the way in which this cotton wool did good was "to support the remaining portion of the membrana tympani or the ossicula."

With a knowledge of these facts I started upon my own investigations, and although some of the statements were calculated to lead me directly away from the conclusions I subsequently arrived at in promulgating the theory of the functions of the membrana tympani and the insertion of an artificial one, still I have not the slightest hesitation in saying, that Mr. Yearsley's statements,—for I believe I had not then seen Mr. Tod's,—were most valuable and suggestive to me; indeed, although my mind was constantly alive to the subject, it is of course possible that but for Mr. Yearsley's paper, I might not have invented the artificial drum.

And now that I have done what I truthfully believe to be full justice to Mr. Yearsley, as the subject of the artificial membrana tympani is one of great interest to the Profession and the public, and is being brought under discussion in this country and on the continent, I will state fully my latest views on the subject.

I have already shown from his own words, some of which I again quote, that Mr. Yearsley's discovery was this: that in cases of perforate membrana tympani, great benefit is derived by passing down a portion of moistened cotton wool, and adjusting it "superiorly, inferiorly, anteriorly, and posteriorly, according to the situation of the perforation and other circumstances connected with the case: but care must be taken that the entire opening be *not* covered, otherwise the experiment will not succeed. Mr. Yearsley adds, that, "to place aright these magical bits of wool is an operation requiring the most delicate tact to manipulate with success, which great experience only can confer." With regard to the manner in which the cotton wool does good, Mr. Yearsley says—"It will be expected that I should say something of the *modus operandi* of the new application; but I can offer nothing that is conclusive." . . . . "Is it possible that moist wool placed at the extremity of the passage can transmit the vibrations of sound in the same manner as the natural membrane, or must we look for some other explanation?" That "other explanation" Mr. Yearsley advanced in 1852: it was that the use of the cotton wool was "to support the remaining portion of the membrana tympani or ossicula."—*Prov. Med. and Surg. Journal*, Aug. 18, 1852.

But to proceed. Armed with this one, but that one an important fact, that deafness caused by a perforation of the membrana tympani is diminished by passing down to the orifice a portion of moist cotton wool, I commenced my researches on the subject. The first result was the paper, "On the Structure of the Membrana Tympani in the Human Ear," published in the *Philosophical Transactions*, for the year 1851; secondly, a paper read before the Royal Society, "On the Muscles which open the Eustachian Tube;" and thirdly, "A Paper on the Functions of the Ossicles of the Tympanum," read before the Royal Society, and published in the *Medico-Chirurgical Review*. The anatomical and physiological results to which the papers lead were:—

1. That the membrana tympani is not muscular, but that it is composed of two distinct layers of fibrous tissue, having the dermis on their outside, and the mucous membrane on their inside.

2. That the principal functions of this membrana tympani were—

a. To form part of the resonant walls of the tympanic cavity, whereby the sonorous undulations are thrown upon the membrana fenestra rotundæ.

b. To act as the analogue of the iris in the eye, and defend the ear against too violent sonorous vibrations; and also, on the other hand, to place it in a position to receive and appreciate those most faint and delicate.

3. That the Eustachian tube is always closed except during the momentary act of swallowing saliva.

4. That the sonorous undulations, instead of passing through the chain of ossicles to the labyrinth, as is commonly believed, are conducted from the membrana tympani to the air in the *closed* tympanum, and thereby impinge upon the membrane or the fenestra rotunda.

Now, it can well be conceived that, after these results had been attained, there was not much difficulty in arriving at the conviction, that in cases of perforate membrana tympani, the sonorous undulations must escape into the external meatus, and by commingling with those still entering, they would not only impinge too faintly on the membrane of the fenestra rotunda, for the perception through the nervous labyrinth of the more delicate sounds, but distinct hearing would be rendered impossible by the commingling and jarring of the tympanic vibrations with those advancing from the meatus.

It can easily be conceived, too, that after arriving at the above conclusions, no obstacle remained in my way towards the suggestion and adoption of the artificial membrana tympani, its main use being turned to the confinement and concentration of the vibrations. But here, again, I must guard myself from being in any way otherwise than rigidly truthful, by saying that it is impossible for me to assert how far these theoretical opinions were antecedent, coincident, or subsequent to the experiments with the artificial membrane. Some of my experiments were, I doubt not, in the scientific sense, purely empirical, that is, made in imitation and variation of

the cotton wool treatment without the promptings of any theory.

And now I have to this subject but one more duty remaining. If my theoretical opinions and practical results are of any worth—and that the practical results are valuable, hundreds of patients and a very large number of Medical men can testify,—there cannot be any grounds whatever for Mr. Yearsley's assertion, that "care must be taken that the entire opening (in the drum) be not covered, otherwise the experiment will not succeed." I oppose this view—firstly, because it is a false one, and false it can be proved by every medical man and student who has attended my practice at St. Mary's Hospital, and by foreigners from most countries who have seen me apply the artificial drum or cotton wool. I may name especially my talented and experienced friend, Mr. Hinton, who for some years has sedulously studied with and often helped me at St. Mary's Hospital and elsewhere; Dr. Sapolini, of Turin, and Kolliker's friend, Von Troelsch, of Wurzburg. I particularise these three gentlemen, because, by their researches they have, in a measure, made the subject of ear diseases their own; but ask any Medical man if, in applying the cotton wool or artificial drum, he has or has not found it *requisite* to keep an orifice in it. The answer will, I am confident, be in the negative; but should it be otherwise, I am equally prepared to prove the utter groundlessness of the proceeding. Supposing an orifice to be preserved in using the wool or artificial membrane (and mind that in many cases a *small* orifice which allows only a few of the undulations to escape is comparatively unimportant, *if the nervous apparatus is sound*), that orifice in the great majority of cases must be closed in an hour or so by the discharge welling through it, but no bad result follows.

I oppose this view, *secondly*, because any medical man reading it and the other detailed directions of Mr. Yearsley—and he may be far away in a remote corner of the world—will be led to imagine that the difficulties of the application of the cotton wool or artificial membrana tympani are so great that it is hopeless for him to try the experiment upon his poor deaf patient, who consequently may remain deaf for life. I wish to make it understood that there are not many difficulties in applying the cotton or artificial membrane to an ordinary case, so that every medical man who has once diagnosed his case correctly may try to operate; indeed when he is told that Mr. Yearsley has now taken measures to advertise to the general public and sell the cotton wool and a silver tube (under the name of artificial tympanum) to the deaf public for their own use, a medical man need no longer be afraid of operating with it in spite of the formidable array of precise directions given by Mr. Yearsley.

If Mr. Yearsley is unconvinced still, let him bring some of his patients, and I will bring mine, before the Pathological Society, and we will experiment conjointly, for, say what people may, Truth is after all easily reached by those who are really desirous to possess her.

In conclusion, I think it requisite to say a few words on the comparative value of the cotton wool and the artificial membrana tympani. No experienced hand can deny that the moistened cotton wool does, in a great majority of cases of deafness dependent upon perforate membrana tympani, act in restoring the hearing. The *modus operandi* is obvious; the water in the interstices of the cotton fibre acts as the successful air bubble did in my own patients, by receiving the sonorous vibrations, conducting them to the air in the tympanic cavity, and confining them there, for concentration on the membrana fenestræ rotundæ. But the defects of this cotton wool must not be overlooked; it is liable to induce inflammation, and it soon becomes sodden by discharge, and forms a heavy mass which presses unduly upon the remaining part of the drum, so as to push it inward to the inner wall of the tympanum; or if the whole of the membrane is absent, then the cotton wool is liable to press against the stapes and inner wall of the tympanum. Again, its constant pressure against the walls of the meatus is calculated to cause absorption of these walls; in short, when we know that one of the functions of the membrana tympani is to form part of the sonorous walls of the tympanic cavity this cotton wool must be looked upon, to say the least of it, as an unwieldy substitute. The artificial drum is made of very thin vulcanized india-rubber, not gutta percha, some of it is as nearly as thin as the paper on which these lines are penned; it is soft, so that its passage along the meatus does not cause pain; it is elastic, so that by the pressure of its margin against the walls of the meatus it is retained in its position, although it still allows the discharge to exude by its side; it is resilient and firm, so as to reflect the sonorous undulations: its defect is, that when so thin it is apt to be torn away from the silver wire on which it is rivetted.

ORIGINAL COMMUNICATIONS.

ON THE ACTION OF THE HEART,

AND A CASE OF

CONGENITAL FISSURE OF THE STERNUM. (a)

By F. W. PAVY, M.D.

I HAVE now, Gentleman, to speak about the action of the heart, and, as I have told you, I propose to show you how it beats in an animal where the chest has been opened and the respiration is artificially maintained; and afterwards to compare what we thus observe with what may be seen through the soft parietes of the chest, in the case of a foreigner now visiting our country, where nature has supplied us with an unusual exposure of this organ, by an arrest of development of the chest-bone. By such a mode of treating our subject, I may inform you at once that we shall have to differ considerably from the description you may have read of the heart's action in our ordinary works on Physiology.

In the action of this organ, as you will presently see for yourselves, the corresponding cavities of the two sides accompany each other in contracting and dilating. But little force is demanded of the auricles, whilst great strength is required of the ventricles, as they have to overcome considerable resistance, and form a most important consideration in maintaining the circulation. It must not, however, be overlooked that the action of the heart is not the only force in operation for keeping up the current of blood in the animal body. Plants have no hearts, and yet there is a circulation of their juices, in obedience to a definite arrangement. In some of the lower animals there is a circulation, without the development of any special propelling organ to maintain it; and even in the embryonic condition of the highest, a definite movement of blood takes place before the heart is sufficiently developed to occasion it. What force is there, then, in these cases to establish a current, and what is there that causes the blood to move, (as we may easily satisfy ourselves it does by the aid of the microscope,) in the web of a frog's foot, after the animal's heart has been excised? It has been styled the capillary force, and we regard it as arising from an attraction set up by the nutritive changes taking place between the tissues on the one hand, and a fresh supply of nutritive fluid on the other. There can be no doubt that this forms an important item in aiding the circulation of blood in our bodies; but our life is so intimately dependent on an exalted functional activity of our nervo-muscular apparatus, which requires a rapid renewal of the nutritive current, that an additional force is rendered necessary, the operation of which is indispensable in maintaining the circulation at the requisite degree of activity. Hence, when this additional force—the action of the heart—fails, a rapid arrest of the circulation ensues, which is an equivalent expression to death.

If you consult your text-books on Physiology, you will find the description of the action of the heart to be somewhat in these terms:—"The corresponding cavities of the two sides act simultaneously, while the auricles and ventricles respectively contract and dilate alternately. The ventricles are continuously engaged in contracting and dilating, and occupy an equal period of time in each. The auricles, however, not only dilate during the whole of the ventricular contraction, but continue dilating during the first stage of the ventricular diastole, and do not contract until its second stage, thus leaving a period in the heart's action when all its cavities are alike undergoing dilatation." This, I say, is the description that is given you of the action of the heart in the mammal as well as in the reptile. Let us put it to the test of observation, in order that we may judge for ourselves about its accuracy.

(a) From the Lectures on Physiology delivered at Guy's Hospital.

I will expose the heart of a frog without disturbing its connexion with the vessels derived from it. You see it still beats with force and regularity, and strictly in accordance with the above description. The contraction of the auricles is sharp and almost instantaneous, and *immediately* precedes—so much so that the one seems to run into the other—the contraction of the ventricle, which is gradual and prolonged.

In this tortoise I have removed a square piece of its hard investing case, and on opening the pericardium the action of the heart is most beautifully displayed. The successive stages will be more perceptible to you than in the case of the frog, on account of the much larger size of the animal. The ventricle appears to take its time in contracting, and gradually distends the large vessels derived from it, while the action of the auricles is sudden and forcible, visibly emptying themselves completely at each contraction.

Those at a distance may satisfy themselves after lecture that what I have stated is correct. But, although true for the reptilian heart, yet I have strong reason to assert that it is far from an expression of the truth for the mammalian heart. The results of my own observation, not in one, but in, now, a considerable number of instances where I have exposed the mammalian heart, and kept up artificial respiration, compel me to reject altogether the preceding description as a statement of its action. It seems to me that this description, which we find in all our standard physiological works, must have been taken from what is observed upon the reptilian heart, and the inference drawn, that the heart of the mammal acted in a corresponding way.

The action of the heart is so intimately dependent upon the normal performance of the respiratory function, that I must tell you objection may be taken to what we see in the exposed heart of the mammal being accepted as a statement of what occurs in the unmutilated animal. In the frog and tortoise we can expose the heart without in the slightest degree interfering with the function of respiration, because these creatures force the air into their lungs by a process analogous to deglutition. But, in the mammal it is far otherwise. In this animal the thorough exposure of the heart necessitates an interference with the respiration, which has to be maintained artificially, if we wish the circulation to be kept up. To those, however, who have repeated the experiment several times, it is soon apparent when the heart is acting regularly and normally or not; and *what I have observed upon the dog is corroborated by what is seen upon this person whom I shall presently refer to, where nature has supplied us with an unusual opportunity of partially witnessing the action of the human heart.* In the individual in question, the heart is admitted, by all the auscultators who have examined him, to be in a perfectly healthy condition. We may therefore, I consider, look with confidence upon our conclusions if what we observe upon him tallies with what we observe upon the exposed heart of the dog.

I will perform the experiment before you, so that you may all have an opportunity of witnessing the movements of this organ, which commence a considerable time prior to birth and continue incessantly till death. We suddenly destroy the medulla oblongata and the brain of a dog with this instrument, specially constructed for the purpose. We have now an end of all sensation. The respiration is instantly arrested, and the heart would quickly cease to beat if we allowed the animal to remain in this condition. We expose the trachea, and with all the speed possible firmly ligature a canula into it, which is connected by tubing with a pair of bellows, so that artificial respiration may be performed. The heart may be felt through the chest beating rapidly, feebly, and irregularly, but on inflating the lungs a few times, its action becomes subdued and natural. On freely exposing the interior of the chest by dividing the costal cartilages and raising the sternum, the heart is surrounded by the pericardium, which has to be opened to display the organ. The lungs are alternately rising and falling through the action of the bellows, and the heart is pulsating with vigour and regularity.

On now attentively observing what takes place, we notice the apex of the heart somewhat tilted forward during contraction and partially turned upon its axis in the direction from left to right anteriorly. The action of the ventricles is sharp and rapid, instead of prolonged as in the case of the reptile. The right appears the most distended side of the heart; but nevertheless, the ventricle seems to empty or nearly empty itself at each contraction. *The right auricle never empties itself;* indeed, with the exception of the appendix, which is but a very small portion of it, it looks like a large sinus or a bulging between the two *cavæ* with no more power of emptying itself than either of these veins.

With the contraction of the right ventricle there is a sudden pulsation of the auricle, or a distinct impulse communicated to it; seemingly to me, from the segments of the tricuspid valve being rapidly thrown into the axis of the auriculo-ventricular opening, and thereby acting on the blood behind them, so as an impression like that of a pulsation to the walls of the auricular cavity. Mr. King—formerly curator of our Museum—many years ago pointed out the fact, that under over-distension of the ventricle, the tricuspid valve would allow of a reflux of blood to take place and occasion the venous pulse, which is frequently observed in cases of pulmonary disease. He also considered that the same explanation held good for the venous pulse that is observed in health, though in a less striking degree. Now, need we look—certainly in the latter condition—to an imperfect action of the valves? Would not the impulse to the contents of the auricle occasioned by the segments of the valve being suddenly thrown into the axis of the large auriculo-ventricular opening be sufficient to account for the slight venous pulse that may be observed in health? However this may be, it is certain that in the exposed heart of our dog, the right auricle receives a distinct impulse upon the contraction of the ventricle, and just at this moment is its greatest point of distension. On looking at the chest, also, of the person before us with fissured sternum; there is a pulsating tumour, which unquestionably in my own mind is formed by the right auricle, and this receives a marked and sudden impulse upon the contraction of the ventricle; produced, I believe, not by any imperfect performance of the valves, but by their being suddenly raised into the axis of the auriculo-ventricular opening, and so acting on the blood behind them as to produce a pulsating impression synchronous with the ventricular systole.

We are told that the contraction of the ventricles occupies half the period of a single action of the heart, and their dilatation the other half: that when the ventricles are contracting the auricles are dilating, and that these continue still dilating during the commencement of the ventricular diastole, and do not contract until near its termination; so as to leave a period when auricles and ventricles are simultaneously dilating. As I have said, this is perfectly true of the heart of the tortoise and the frog; but I will leave you to determine if such a description can be accepted for the heart of the mammal, after examining its movements in the dog and in the individual before us.

In the dog the contraction of the ventricles is sharp and rapid instead of prolonged as in the reptile, and does not appear to occupy nearly so much time as half the period of the heart's action. The ventricular contraction communicates a sudden impulse to the auricles, occasioning in them a distinct pulsation, which is instantly followed by a peculiar thrill, wave, or vermicular movement, running through the auricular parietes down towards the ventricle. This thrill or wave is coincident with the passage of the blood from the auricle into the ventricle, and takes place so instantaneously after the ventricular contraction, that the one movement appears to run or to continue itself into the other. There is then a pause which seems comparatively of considerable duration, and which is succeeded by a re-commencement of the heart's action, beginning with the ventricular contraction.

Such, then, is what we observe upon the mammalian heart whilst beating with vigour and regularity; and you perceive that the contraction of the auricle instantaneously succeeds that of the ventricle, whilst, as we have noticed in the reptile, the auricle continues dilating after the ventricular systole is over—during the first half, in fact, of its diastole. Between the auricles and the ventricle of the frog there is a distinct alternating movement, whilst in the heart before us there seems one movement, which is of a rapid and continuous character, commencing with the contraction of the ventricle and terminating with the thrill through the walls of the auricle. Beyond this thrill—when the heart is beating regularly—I can discover no contraction of the auricle: the blood appears to flow simultaneously with it through the auriculo-ventricular opening, and the ventricle to be then at once distended in proportion to the tension existing in the auricles and larger veins. In this state the heart remains until a fresh contraction of the ventricle ensues. If the two *cavæ* be held or

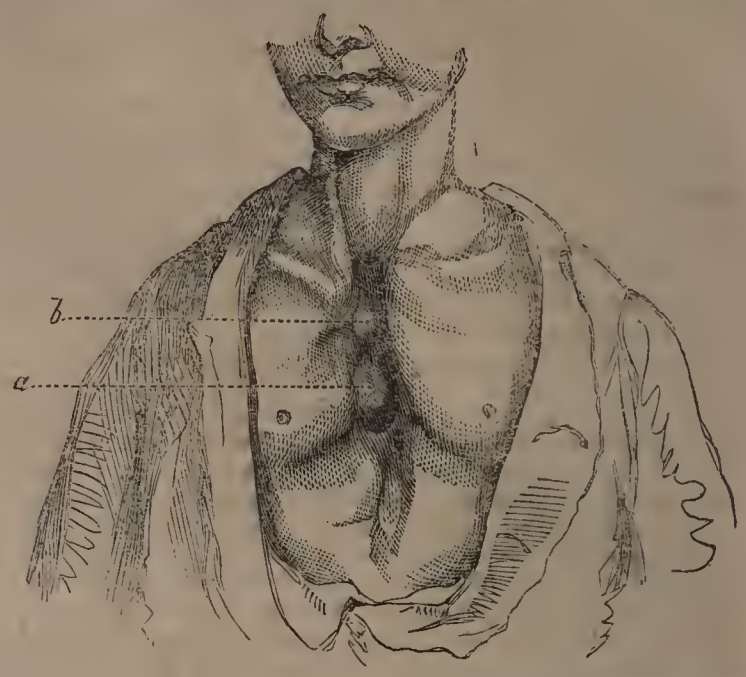
pinched so as to prevent, the flow of blood to the heart, the walls of the right ventricle are thrown into wrinkles or folds during the diastole. When the heart begins to lose its power, and ceases to perform its natural action, there may be noticed in the auricles, for a considerable time, a series of sudden, feeble, and irregular jerks.

Let us now turn our attention to what we can learn from an examination of this person with fissured sternum. In running through the principal features of interest in his case, when I come to speak of a pulsatile swelling corresponding to the right auricle, you will notice that the phenomena here observable most minutely correspond with what we have been looking at upon the heart of the dog.

CONGENITAL FISSURE OF THE STERNUM.

E. A. G——x, the subject of this defect, is a native of Hamburg, 25 years of age, below the average height, and although a little thin and pale, yet appears in the enjoyment of pretty good health. I will first sketch you an outline of his history, which I am sure you will consider not altogether devoid of interest. He tells me that he just remembers, when about four or five years old, being taken by his family doctor to a Medical Society at Hamburg; but for what purpose he scarcely then understood, nor did the interest of his case fully occur to him until within comparatively a recent period. He was aware that his chest was not exactly like other people's, but he did not know that there was any special interest connected with this malformation. About 1850 he was over in London, residing with a relative moving in a comfortable sphere of life, and was attacked with cholera. His recovery being protracted, he was for some time under medical attendance, and then it was that his defect was made known to the profession. He was taken about as a curiosity to our leading physicians, amongst whom was Dr. Babington, who brought him down to Guy's, and had a couple of models made of him by Mr. Towne, which are preserved in our Musuem. I took him across to Mr. Towne's room the other day, and we compared his present condition with these models, to see if any change had taken place. We noticed that the clavicles and the lateral margins of the sternum had slightly approximated, so as to render the groove narrower than it formerly was, during a quiescent condition of the chest. To proceed with our sketch. He afterwards returned to Hamburg and being seized with an attack of hæmoptysis he was recommended to leave the situation he held in a house of business which kept him confined all day, and to go into the country for a time. It now occurred to him to put in practice the suggestion, which, he says, had often been made to him, viz.:—to travel, and show himself to the medical celebrities of the different countries. Starting for Hanover in 1851, he found his expectations realized; and since then he has been visiting all the principal places on the Continent, including France, Germany, Belgium, Holland, Spain, and Russia, and to judge from his appearance, one would certainly conclude that he made it thoroughly answer his purpose. He was in London for a short time, about two years ago, and after a short stay now, he intends to proceed to the provincial towns where Medical schools are attached, and then to Scotland and Ireland. He carries with him an album in which he gets one to insert one's opinion of his case and to sign one's name. So that, having been to nearly all the most distinguished men of our age, his album presents a most interesting collection of autographs and at the same time testifies the interest his case has elicited.

On getting him to expose his chest, we notice in the median line a longitudinal groove, which is represented in this drawing that I requested our artist to make of him. The groove of course corresponds to the absent portion of the sternum. It is bounded on either side by a continuous hard ridge, which constitutes the lateral margin of the bone, and articulates with the costal cartilages. The skin passes naturally over the chest from one side to the other, but we see it raised in one part of the groove by a pulsatile swelling (*a* in the sketch), which occupies the position of the right auricle. The clavicles and the two margins of the sternum above have no connexion whatever with each other; but below, the latter are joined by a hardish substance which holds the situation of the ensiform cartilage, and forms the lower boundary of the groove. This substance, however, must essentially differ in structure from cartilage, for it possesses such elasticity as to allow him under the influence of the pectoral muscles, when the upper extremities are fixed, to open the groove to an extent of very nearly three inches; it being only a little more than half this width, at its widest part, which is opposite the third and fourth ribs, when the

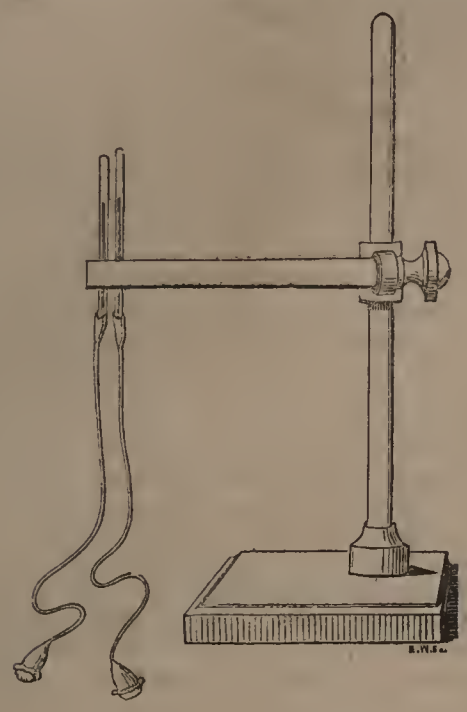


parts are in a natural state. By approximating the arms the end of one clavicle may be made to overlap the other. The muscles of the neck have their normal attachments, although it seems when he takes a deep inspiration, from the cutaneous fold that is produced, as if the sterno-hyoid and -thyroid muscles of the right side of the neck crossed over to be attached to the left piece of the sternum. But if these muscles be called into action by the process of swallowing, they may be seen to pass down to be attached on their proper side. If he be requested to cough the right lung suddenly protrudes from the chest through the groove, and ascends a considerable distance above the right clavicle into the neck.

The great point of interest, I conceive, connected with this case, is the exposure of the action of a portion of the heart which is normally hidden from our view. We know well enough, upon examining our own bodies, the exact moment the ventricles are contracting, from the shock communicated to the thoracic parietes; but we have nothing similarly to guide us with regard to the auricles. A case, therefore, in which the action of an auricle is to be witnessed cannot fail to merit our deepest interest and attention. Now, on looking at the groove a pulsatile swelling is discernible opposite the third and fourth ribs (*a* in the accompanying sketch). In its ordinary state it scarcely forms a projection except at the moment of pulsation, but if the respiration be suspended it rapidly rises to an enormous extent, measuring then even three inches from above to below, and remains full and tense until the breathing is restored, when it soon subsides. *The tumour distinctly pulsates with the contraction of the ventricle and the production of the first sound of the heart. It rises rapidly and suddenly, and instantaneously afterwards falls with that peculiar thrill, wave, or vermicular movement proceeding from above to below, which I pointed out, as, at this period of the heart's action, running through the parietes of the auricle of the dog. It then remains at rest until again distended by a fresh contraction of the ventricle.* From the behaviour of this pulsatile swelling, so precisely corresponding to the action of the auricle in the dog, there is not a shadow of doubt in my own mind of its being formed by this portion of the heart: its position, however, would also lead us to a similar conclusion. You will perceive, therefore, admitting such, how this case corroborates what I have stated about the action of the mammalian heart (the contraction of the auricle immediately following, instead of preceding that of the ventricle), and stands in opposition to what we are ordinarily taught.

Between the clavicles (at *b* in the sketch) there is another pulsatile swelling, which can be scarcely seen, but may be easily felt. It is doubtless formed by the arch of the aorta, and when the fingers are placed on it, a double shock synchronous with the distension and the recoil of the vessel, or the opening and the closure of the semilunar valves is perceived.

By means of an apparatus of this description (represented in the accompanying woodcut), which may easily be constructed in the laboratory, an exact comparison can be made of the period of the impulse of the heart with the pulsation of the arteries. It is filled with a coloured liquid, and consists of a



capillary glass tube, connected by vulcanised tubing with a kind of elongated funnel tied over at its mouth with a piece of caoutchouc. The slightest impression on the caoutchouc causes a movement of the fluid in the capillary tube. Applied to this person, we see that the impulse of the heart is synchronous with the elevation of the auricular swelling; that the shock of the heart against the chest is over by the time the artery at the wrist pulsates, and is distinctly in advance of the pulsation of the carotid; that there is even a slight difference of time between the pulsation of the carotid and the radial; and that the impulse of the heart occurs slightly before the rising of the swelling formed by the aorta.

CASES OF DIAPHRAGMATIC PLEURISY.

REPORTED BY

WILLIAM H. STONE, M.B. Oxon., F.R.C.S., L.R.C.P.

Medical Registrar to St. Thomas's Hospital.

(Concluded from page 499)

Case 3.—Henry Wise, aged 36, shoemaker. Admitted June 15, 1857. His account was that he knew of no hereditary phthisical predisposition, and had suffered from no serious blood-diseases. He had been for some months in great poverty. He had had winter cough for some years. Since Christmas, 1856, this had been much more severe, constant and increasing; dry at first, for about a month accompanied by expectoration. The breath had also been getting rapidly shorter during the same period. Never had hæmoptysis. Emaciation had commenced suddenly seven weeks before admission, and had proceeded very rapidly, so that on his entrance, though a man of 5 feet 8¼ in height, his weight was only 7 stone 5¼. This rapid loss of flesh was probably due to an attack of diarrhœa, which had set in at the same date, and had continued almost unchecked until admission. The bowels had been open from four to seven times a day; the motions had a dysenteric mucous character, and were occasionally streaked with blood.

On examining the chest there was perceptible sinking in under both clavicles, especially the left. On this side percussion was dull; respiration deficient, and accompanied by some humid crackling. Posteriorly, on the right, there was slight dulness, feeble breathing, and some subcrepitant rhonchus.

The treatment consisted of slight tonics, with tinct. cinchonæ and astringents.

On the 23rd he was improved; the diarrhœa much relieved, though there remained some tenesmus.

For the first few days of July he continued better, and had gained 2¼lb in weight. The pulmonary symptoms had improved; there being no moist sounds on either side. On the 6th there was slight recurrence of the diarrhœa, but he was not materially worse until the evening of the 9th. He then began to complain of pain in the epigastric region. During the night vomiting began: when seen early on the 10th his state was as follows:—

He was sitting propped up in bed, unable to lie down; his face anxious, the general aspect much depressed. Pulse 120, feeble. Breathing very rapid, irregular, and incomplete. He was complaining of severe lancinating pain, referred to the epigastrium and scrobiculus cordis; increased by deep inspiration, by the act of vomiting, or by any quick movement. Vomiting was constant and ineffectual, with much hiccough.

The whole body, but especially the conjunctivæ, had a slight but decided yellow tinge.

On examination of the chest no change in the physical signs could be detected beyond a slight doubtful dulness at the left base posteriorly, where there was some tenderness on pressure. He was ordered a large sinapism, effervescing medicine, and a dose or two of a slight mercurial, with opiates.

Within the few following days he improved somewhat; the vomiting ceased, some food was taken, and the jaundiced tinge of the skin gradually disappeared. He continued to complain of deep-seated constant pain in the left hypochondrium. The physical signs were unchanged.

On the 22nd, early in the morning, he had a severe fit of coughing, and began suddenly to expectorate a considerable quantity of green, solid-looking, very fetid purulent matter. On careful examination of the chest, there was nothing discoverable at either apex to account for this; the former dulness and deficiency on the left side were unchanged, and moist sounds were absent at both apices. In the left flank, however, and posteriorly at the base of the left lung, besides the slight circumscribed dulness, there was large irregular gurgling to be heard. In the same region the vocal resonance was much increased, but not pectoriloquous. He received some benefit from the use of stimulants, creosote, and opium. A condition of severe hectic was, however, set up, which lasted for some days, until the expectoration diminished somewhat, and lost its very fetid odour. Some little improvement took place during the following week, till he went home at his own desire.

We seem fairly justified in looking at all the cases detailed above as instances of the same affection. The second, and best marked of them, is substantiated by the autopsy, and the others resemble it closely. The first case, too, is tolerably clearly made out. The occurrence of sudden and rapid pleuritic effusion within forty-eight hours of the first attack is of itself significant. When we add to this the presence of tubercle to a large extent, ascertained by independent signs, the weight of evidence is greatly increased; for in such a case localised pleuritic affections would be the rule, rather than the exception. Lastly, the rapid recovery from the acute symptoms, and the return to the former partial state of health, almost excludes any abdominal or other mischief which might have taken on similar appearances. The third case is more distinct, when taken in connexion with the two former, than when looked at alone. It is marked by the addition of a distinct but transient jaundice, coincident with the most acute chest symptoms. There is a case the exact parallel of this recorded among Andral's cases, where, on post-mortem examination, there was found a sero-purulent effusion circumscribed to the diaphragmatic surface of the pleura, pushing down the liver, the pleura being elsewhere healthy. He accordingly sets down jaundice as an occasional, but not essential, sign of this affection. But, besides coincidence of symptoms, we have the sudden occurrence, for the first time, of profuse fetid purulent expectoration within a few days of the pleuritic attack; and when we search for the source of so abundant a discharge, it is found, by means of the auscultatory sign, in the very spot where only its presence and formation could possibly have given rise to the antecedent symptoms. The only other explanation of the expectoration is, that a vomica had formed in a dependent part of the lung, and was unable, from a mechanical cause, to empty itself; but, even supposing this to have taken place without giving any auscul-

tatory signs while in progress, we are totally without an explanation of the first attack of nausea, vomiting, and pain.

Andral, in the Clinique Médicale, vol. ii. p. 473, gives five cases closely resembling those detailed above in every particular. Three of these are uncomplicated by affections of other parts of the pleura; two form part of a more extensive pleuritic attack. Three occur in the course of phthisis; two are uncomplicated by it. In two of these cases there was delirium, in one jaundice.

Dr. Graves's case is given in his Clinical Lectures, vol. ii. p. 59. It is remarkable, as he observes, for the absence of many marked symptoms. This is partly accounted for by its occurring in a child of 8 years old. Hurried breathing, with action of the muscles of forced inspiration; the face pale, the lips blue; slight cough; face very anxious; pulse 120, weak, and small; uneasiness, no distinct pain anywhere; fremissement, and afterwards friction-sound in the cardiac region, form the principal features of this case. It is remarkable for the absence of distinct pain, and of vomiting; though the former is rendered less important by the youth of the patient.

We have altogether nine cases, from various sources—four non-tubercular; five tubercular. The general result from these are as follows:—In all the attack is sudden; and in all but one marked by intense lancinating pain. The pain varies in site; in some passing along the cartilages of the false ribs, into the hypochondrium, and, in one of Andral's cases, even into the iliac region; most commonly it is referred to the epigastrium. The pain is not necessarily accompanied by external tenderness, or increased by pressure. In all it is increased by deep inspiration, or by movement.

In all there is great anxiety of countenance, and much depression. Indeed, this appears to have been one of the most prominent symptoms in every instance.

In all there is orthopnœa, with a bending forward of the body. In the majority of cases no other position could be tolerated, at least during the early stage. In all the cases, too, the breathing is rapid and incomplete. Andral calls this complete immobility of the diaphragm.

In five cases a very prominent symptom was constant and ineffectual vomiting, with much hiccough. In three there was severe diarrhœa; in two, jaundice.

Delirium, given formerly as a symptom, was absent in all but two. In one of these the general febrile symptoms ran so high, that it might naturally have been expected; in the other there were evidences of distinct cerebral affection, probably independent of the pleural mischief.

The value of these cases is not dependent on their rarity, or on their difficulty. But they are interesting, as showing an abnormal and pseudo-morphous variety of a very common disease; and also, in a practical point of view, from the fact that symptoms are generally present which tend to mislead the observer, and withdraw his attention from the part really affected. In this way, by one of these very cases, was the great Morgagni deceived; and while he frankly acknowledges his error, he adds (Epist. xx. 31):—"Adeo in medicinâ facile est per ea ipsa interdum decipi, quæ facere videntur ad vitandas deceptiones."

CRIMINAL ABORTION—CASE AND REMARKS.

By WILLIAM HINDS, M.D.

Can nothing be done to put down or diminish criminal abortion—one of the most fearful evils with which society, having a high moral code, has to contend, and one very probably much on the increase? The case which I shall presently relate, adds another to the list of those which have recently been brought before the public eye in the pages of the Medical journals, partly through the instrumentality of members of the Profession. Only a very small fraction, indeed, of these cases ever meets the public eye, and besides this many circumstances have come to my knowledge which convince me that the felonious nature of these transactions is but imperfectly understood by a large portion of the community. Occasional applications are made to Medical men by persons moving in a respectable sphere of life, on behalf of some friend or relative, under circumstances of great misfortune, and who seem astonished when made aware of the highly felonious nature of the purpose and agency they seek. This ignorance of the laws and of the great criminality of such attempts, is a thing which either the judicial authorities or the press, or both, can sufficiently rectify. Criminal abortion is exceedingly rife, and certain agents, male and female—not unfrequently the latter—for its production are to be found whenever they are sought. The result to the victim is sometimes fatal, and when not, is often attended with severe, if not permanent, injury. This wide-spread crime can and may be dealt with more vigorously than some of the evils which afflict the community. In this, at least, there can be no misgivings as to the efforts and the effect of exterminating the evil, if that were attainable. The delicacy of these transactions, the fearful dread of exposure such as must occur when the subject of one of these crimes is brought to give evidence in a court of justice, added to the oath or solemn promise of secresy which is generally made in such cases, make it next to impossible to get the agents of these terrible transactions justly punished for the crimes they commit. The wholesale infanticide—open and recognised—in many of the districts of the Chinese empire, is scarcely more terrible than these secret crimes, perpetrated so often with impunity beneath the surface of a community which insists upon, and is characterized by a strict and advanced refinement in its code.

A while ago I received a request to visit A—— B——, who proved to be a fine young woman of about 26, respectably connected. There was an aged mother, who evidently could give no account of the case. On the first day of my visit I found the patient labouring under severe entero-peritonitis. The following notes were taken at the time:—

Acute pain in abdomen, with extreme tenderness all over, especially in right hypochondrium and centre of pelvic region. Some vomiting and retching; tympanitic distension. The tenderness is so severe that a very intimate examination cannot be made. Tongue much coated; violent rigors; pulse about 80, rather small. Some tumefaction in the pelvic region, which seems like a very full bladder, or a somewhat enlarged uterus.

The remedies ordered were leeches freely applied over the whole abdomen, hot fomentations constantly used, and calomel in two-grain doses, with one-third grain of opium every four hours. The urine was removed, but the pelvic enlargement was not reduced.

There was no history then forthcoming, and no satisfactory answers to several questions could then be obtained.

3rd day.—The gums are very tender from the mercury; but there is still intense tenderness over the whole abdomen. In the pelvic region the somewhat enlarged uterus can be distinctly recognised, though the least pressure cannot be borne. The peritoneal covering at least of this organ partakes fully of the inflammatory condition. The knees are raised, and kept constantly up, to protect the abdomen from the weight and contact of bed-clothes. Little or no sleep.

To repeat the leeches, and continue the mercury and fomentations, and to have a solvent enema, and a large dose of opium at bed-time.

7th day.—As little or no improvement took place in the main features, a large blister was applied yesterday over the abdomen. The urgent pain has now become somewhat mitigated; tenderness still severe; maintains the same position on the back, with knees up as before. Profuse and cold sweats come on every time she doses to sleep. Occasional vomitings. Countenance exhibits some prostration. Bowels several times open yesterday. Pulse about 85, possibly a little fuller. Opiates are constantly required, and nourishing broths are taken in very small quantity. Mouth still sore. Slept two or three hours last night, after taking four grains of powdered opium. The mercurial action to be kept gently up.

9th day.—Pain described as decidedly lessened in severity, coming on, however, in paroxysms. Slept three hours last night. Cutaneous exhalations profuse as before. Absence of severe constitutional depression. Pulse 80, and quiet. Tongue still much coated with a thick fur. Little or no anxiety of countenance to-day, and the patient is in fair spirits, though compelled still to retain the old position. Vomits occasionally. The urine is very high-coloured, but free.

The blister having nearly healed, another to be applied across the epigastric region, and a small one also on the left loin, where a very severe patch of tenderness is complained of. The mercurial action to be gently kept up a little longer.

19th day.—Since last report has been progressing rapidly, and is now able to sit up. Takes solid food without inconvenience. The abdomen is entirely free from pain and uneasiness. A little general weakness alone remains.

General Remarks.—I shall make only a very short commentary, and have to remark that I had strong suspicions from the first that this case was not uncomplicated, and had not arisen from ordinary causes: and these suspicions of a more special and prolonged cause of the disease were confirmed when, for many days, and while the system was fully under the influence of mercury, the symptoms continued almost entirely unabated; while, on the other hand, there were wanting the ordinary signs of sinking of the vital powers. I believe that in cases of severe inflammation of the serous membranes, and peritonitis amongst the rest, it is reasonable to expect and hope for a manifest relief to the more urgent symptoms, if the case can recover at all, when the system shall have been fairly brought under the influence of mercury.

The blisters here used, though by no means a favourite remedy in acute peritonitis cases, seemed in this case to work a most signal and important improvement. During several days I considered her life to be in great jeopardy.

Previous History.—The history of this case, obtained piecemeal, and not until after great danger had been announced, is that some five weeks previously to my first visit, this young lady had left home on the plea of visiting a relative. The real purpose was to enable her to get abortion produced, being then five or six months advanced in pregnancy. With this view she applied to a person of whom she had heard, and something was administered to her which she took regularly night and morning. She was told by the agent in this case, but under a pledge of strict secresy, that it was "oil of savin," and that if it should make her ill, or not agree with her, she must take it until it did agree. The effect of this was "severe and constant purging, retching and vomiting, and intense pain and illness." At the end of a week, during the whole of which, according to the statement, she had persevered with the medicine, abortion took place, and a dead male child was born. As soon as possible she returned home, but the pain in the abdomen did not leave her, but got rapidly worse until she was seen by me. The person to whom she applied is described as a widow in good circumstances, but acting sometimes as a nurse and useful "friend" in illness among the better classes in the neighbourhood of a small town some miles from Birmingham. A fee was given, and the strictest secresy enjoined and promised. These are all the facts that could be ascertained, the name of the acting party and her exact residence being resolutely concealed.

The violent symptoms in this case must unquestionably be considered to be due to the poisonous agent administered to procure abortion, the enteric inflammation gradually invading the other coats of the bowel, and lastly involving the peritoneum.

I cannot conclude this case without expressing a deep regret, such as every member of the Profession, with hardly an exception, will feel, that any obstacle should exist in the way of bringing persons of so dangerous a character as the agent in this case before the criminal tribunals of the country.

THE LONDON

PRACTICE OF MEDICINE AND SURGERY.

REPORT ON THE TREATMENT OF PROLAPSUS UTERI.

We purpose to pass in review the means at present employed for the cure or mitigation of prolapsus uteri, having more especial reference to the operative measures which have recently come into vogue. According to its supporters, and they are year by year increasing, a simple plastic operation, involving little or no risk, is all that is requisite to the permanent relief of even the most severe case. Considerable hesitation, however, is felt in certain quarters in accepting this so pleasing doctrine. Thus, whilst we find a reviewer in the *Medico-Chirurgical*, so long ago as 1846, enraptured with the account given by Dieffenbach of his successes, exclaiming, "Is not this a triumph of modern surgery? Is not this sufficient to reconcile the most sceptical to endure all the uncertainties and failures of the art?" we are disappointed to read, ten years later, in the work of a highly-esteemed authority: (a) "But a more serious objection to the surgical proceedings for the alleged cure of these affections is, the want of permanence in the result; and the rather, since failure would seem to be the rule, success the rare exception."

Thus, also, we have the anomaly of an operation, held by many to be one of the greatest boons conferred by modern surgery, which has never once been performed in either St. Bartholomew's (b), St. George's, St. Thomas's, or the Middlesex, but once at the London, and which is only of the most recent adoption both in King's College and the University Hospital. Such being the state of professional opinion, as exhibited by the practice of our largest institutions, the task of collecting evidence cannot surely be superfluous. We are the more encouraged to undertake it, because the matter is one in which *à priori* argument avails little or nothing, and in which the appeal lies to carefully collected facts alone. It is, moreover, a comparatively easy subject on which to obtain a conclusion. There are but few complications. We have only to find answers to two questions: 1. Is the operation permanently successful? and 2. Is it free from risk?

Respecting other plans of treatment we need say but little. In really aggravated cases they are generally admitted to be most unsatisfactory. In a recent case of procidentia, to confine the patient for a few weeks to the couch, using at the same time astringent injections and nervine tonics, will often, provided no perineal lesion exist, be perfectly successful. In some cases of even severe and chronic prolapse, if the subject of it be in good circumstances of life, able to rest in the recumbent position as much as requisite, and willing to be painstaking in the removal and replacing of her instrument, pessaries may often afford great relief. The great majority of bad cases, however, consign their subjects to life-long annoyance and suffering. In Hospital practice in the Metropolis pessaries are almost never employed; with some obstetric Physicians of large experience they are denounced in no measured terms. That they aggravate one of the conditions most needing relief, viz., the dilatation of the vagina, is undoubted; and that they often occasion most troublesome affections of the rectum and bladder is equally well known. Once employed, and whatever the degree of irritation which their pressure may have caused, they can never be laid aside with any comfort. They are, in truth, most clumsy and unscientific contrivances, and *faut de mieux* is the only possible plea to be urged in their favour. The employment of a perineal bandage and pad merely prevents, even if it does that, the actual extrusion of the viscus, and does little or nothing to alleviate the dragging pain in the back and other inconveniences of the condition. The use of astringent lotions is powerless in confirmed cases, and the same may be said respecting the exhibition of quinine, nux vomica, &c., so invaluable in recent and mild ones. We come then to the conclusion that for really bad cases of uterine prolapse, neither medical nor mechanical means can effect much. And a mere glance at the pathological state of the parts concerned will suffice to explain their failure. The uterus itself, from long protrusion, has become swollen, enlarged, and heavy; its ligaments are stretched and weakened, the whole vagina is relaxed, dilated, and deficient in tone, and the vulva stretched to such an extent that though, perhaps, at first the perinæum may have been little, if at all lacerated, it is virtually torn through. To introduce a pessary will simply dilate still further the vagina and vulva, and will keep up the irritation of the womb itself, whilst medical agents are simply inadequate to the need. A long and strict confinement to bed might possibly affect something, but how few there are who would or could submit to it!

(a) Dr. West's Lectures on the Diseases of Women.

(b) Mr. Paget has operated several times, and very successfully, in cases of ruptured perinæum, in which the rectum was torn open. The assertion above is intended, however, only to apply to operations undertaken simply for the relief of prolapsus.

Among the immediate causes of prolapsus, we have to enumerate three conditions:—1. Elongation of the uterine ligaments; 2. Increased weight of the uterus; 3. Deficiency of support in the vagina and perinæum. In most cases two or more of these are combined together. Most cases begin after a delivery, in which the perinæum has, perhaps, been torn, the vagina stretched and half-paralysed by distension, and after which the patient has resumed the erect posture too early, while the uterus was still heavy, and before its ligaments, which had been lengthened during pregnancy, had yet contracted. When it has once occurred, it is easily seen how every day will aggravate the condition, and render it more likely to be permanent. Now in looking at the various operations which have recently been proposed, it must be admitted that they address themselves to the removal of but one of the three conditions mentioned. At least they only affect one of them directly. Hence the objection which Surgeons who hold to the theory of ligamentous relaxation being the one cause of prolapsus, take to a proceedure which only proposes to diminish the calibre of the outlet. Looked at more carefully, however, we suspect that the state of the outlet will be found to be of far more importance than these Surgeons are willing to admit. In a vast majority of cases the perinæum will be found to have been torn, and in others it has become so relaxed that it resembles, as to depth, etc., the state of a torn one. Although it must be granted that now and then cases of complete destruction of the perinæum are met with in which yet no prolapsus exists (c), there can be no doubt, as a general rule, loss of support below is a most powerful inducing cause. Another strong argument in favour of its efficiency we find in the frequency with which vesicocele and rectocele complicate these cases. Prolapse of the bladder or rectum manifestly depends chiefly upon the dilatation and loss of tone of the vagina, though, no doubt, aided by the traction of the depending uterus. Before appealing to experience in support of the assertion that an operation which aims only at the narrowing of the vagina and its outlet is efficient to the prevention and cure of prolapse, we will just remark, that the month's confinement to bed which follows its performance, must undoubtedly be admitted to a share of credit. During it the uterus has time to diminish in bulk, and its ligaments to regain their tone.

Foremost among those of English Surgeons who have practised these operations, whether for number of cases or for zeal in perfecting the details of their performance, stands the name of Mr. J. B. Brown (d). It is, indeed, chiefly to his unwearied advocacy that their present and still spreading popularity must be attributed. We shall, therefore, commence our Report by adducing the results of his experience.

(c) One such the writer has recently had under his care. The perinæum was torn through into the rectum, yet no prolapse had ever occurred.

(d) We are anxious to avoid entering upon any discussion as to priority, and may, therefore, simply remark that there is no doubt but that Fricke of Hamburg, Dieffenbach, and others, anticipated Mr. Brown in all important points; yet, since the latter states that he performed his first in ignorance of what others had done, it might, therefore, be deemed original as far as he was concerned.

ST. MARY'S HOSPITAL.

CASES OF OPERATION FOR PROLAPSUS UTERI.

(Under the care of Mr. BAKER BROWN.)

The two following are of unusual interest, in consequence of the record of the state of the patients at considerable periods after the operation.

Prolapsus of Uterus, eight years' duration. Operation; cure.—A. Z., aged 49, admitted into St. Mary's Hospital under Mr. Baker Brown on April 17, 1855. She has had three children, the last of which was born suddenly and without assistance, and at that time (8 years since) the womb became very much inverted and prolapsed. It has gradually got much worse, and she has worn pessaries with partial relief. Her general health is bad, and she suffers from diarrhœa, and has the appearance of being a very ill-nourished person.

On examination the uterus, somewhat enlarged, is found to protrude bodily from the vagina when she is in the upright position, and when she coughs it does so while she is recumbent. There has been no tear of the perinæum. She is of a very lax fibre, so that no resistance is offered to the descent, either by the muscular contraction of the vagina or its sphincter.

May 9.—Mr. Brown performed his usual operation.

12th.—Deep sutures removed. The parts had adhered by the first intention.

15th.—Interrupted sutures removed.

June 19.—Discharged perfectly recovered.

July, 1857.—She has remained perfectly well up to this period.

Prolapsus of Uterus and Bladder, three years' duration. Operation; cure. Subsequent pregnancy.—E. E., , aged 28, admitted into St. Mary's Hospital May 26, 1854. Six weeks after her second confinement she had a feeling of fulness and pains in the vagina, relieved upon lying down, and attributed by herself to want of sufficient care and rest after her labour. Five months after this a tumour, the size of a hen's egg, protruded through the vagina. She then became pregnant again, and all the symptoms passed away. Thirteen months ago she was again confined, when the symptoms rapidly returned, and the tumour protruded to the size of a fist, as it now is. It partially returns when she lies down, but always protrudes when in the erect posture, or when she voluntarily bears down. She has great difficulty in making water, indeed she is obliged to put the tumour back into the vagina before she can micturate.

On examination it was found that the uterus protruded through the lips of the vagina to the size of a fist, and dragging down the bladder with it. There was no rupture of the perinæum, and the pudenda seemed well formed.

May 31st.—The patient being under the influence of chloroform, Mr. Baker Brown operated in his usual manner.

Everything went on very well. The parts adhered firmly, and she was soon discharged quite cured. She has since been pregnant, and was delivered of a fine child without the parts in the least giving way, neither has there been any return of the prolapsus.

STATEMENT OF MR. BROWN'S STATISTICS.

Mr. Brown has kindly furnished us with the subjoined replies to the following questions. These cases include, of course, private as well as hospital practice.

1. In how many instances have you performed this operation?—75.

2. The number in which the perinæum had been torn?—About 25. And the number in which it was done merely for the relief of prolapse, the perinæum being uninjured?—50.

3. In how many cases has death followed the operation, and what have been the causes of it when it did occur?—*Not one.*

4. In how many cases has the relief to the prolapse been such that it might be termed fairly a cure?—In all, with only slight exceptions, where the relief was partial.

5. In how many has non-union resulted?—*Not one.*

6. What has been your experience as to permanency of the relief afforded in bad cases of prolapse by these operations?—That the relief has been permanent, but occasionally some *internal* prolapse followed on great exertions.

Such is a general statement of Mr. Brown's experience. Our space does not permit of our inserting many cases in detail, and we shall, therefore, give preference to those of other Surgeons, since the corroborative testimony of others is more valuable than that of an avowed advocate. Mr. Brown's facts must, however, we think, be held to prove beyond doubt that the operation is not one attended with any material risk to life. As to permanence and degree of benefit, more detail would be necessary in order to afford a safe basis for more than a general inference. In several of the cases to follow, however, we shall be able to state the result at very considerable periods after its performance. Such cases, however, not unfrequently pass from under the notice of the operator, and are lost sight of within a few months; and we may here state that should any of our readers be in possession of knowledge respecting the final result of any such (that is to say, at periods of a year or more after the operation) we shall feel obliged if they will communicate with us. The question is one of great importance, and can only be placed beyond the reach of doubt by the concurrent evidence of many unprejudiced observers.

(To be continued.)

THE MOORFIELDS OPHTHALMIC HOSPITAL.

TWO CASES OF STRABISMUS AND VERY IMPERFECT VISION—OPERATION AND CURE.

(Under the care of Mr. CRITCHETT.)

Two of the most remarkable cases in illustration of the advantage to vision often obtained by the operation for strabismus that we have ever seen, have just occurred in the clinique of Mr. Critchett. That patients who squint have very defective sight, more especially in the affected eye, and that this impairment is usually remedied by the operation, is well known to all who have paid attention to the subject. In the following cases, however, the defect was so extreme, and yet the relief obtained so great, that we shall venture to record them.

John F., a healthy-looking boy, aged 10, was brought to the Hospital six weeks ago, on account of his sight being very bad, and with the complaint that he saw things double with the right eye. He had a most extreme convergent strabismus, the right eye being drawn quite into the palpebral angle. On covering up the left eye he was made to walk across the room, when he stumbled against the chairs, etc., and even walked against a projecting corner of the wall; a pen being held before him, he said that he saw three, and being told to touch it put out his hand a foot to one side of it. With the right eye he could not distinguish capital letters, though he could read small print with the left. His progress at school had been very slow, owing, it was believed, to his very defective sight. He could only see things clearly and without duplication when the right eye was covered. The eyes appeared perfectly normal in every respect, the squint excepted, and he had no signs of brain disease. The history given of the squint was that his eyes had been perfectly straight until an attack of ophthalmia, which lasted from the age of two to that of four, and during which intolerance of light was the chief symptom, and after the subsidence of which the convergence was observed. He had never had fits.

The imperfection of vision being so unusually great, it was feared that either retinal or cerebral disease must exist. A careful examination was made with the ophthalmoscope, but no morbid conditions were observed other than that the retina of the lowest part of the globe appeared as if a little raised. Of cerebral disease there was not the slightest evidence.

The operation was performed at Mr. Critchett's request by Mr. Hutchinson; both internal recti being divided by subconjunctival section on the same day. The rectification was perfect, and on testing the sight as soon as the boy recovered from chloroform it was found that he could see nearly as well with one as the other. A fortnight later the eyes were quite straight, without the slightest undue prominence, and he could see to read small print with the affected eye, and distinguished all objects perfectly. No doubt could be felt but that the imperfection in vision had resulted solely from the squint.

A yet more remarkable case occurred a few weeks later. A very intelligent boy, aged 11, of Scotch parentage, was brought on account of a severe squint which affected the right eye. The squint had been first noticed after a prolonged attack of ophthalmia at the age of two, in which the eyes had been closed for several weeks. He had never had fits or any severe illness. He had learnt to read well, and could see perfectly with the left eye, but with the right he could but just tell light from darkness. He spoke of it as his "blind eye." When taken into the darkened ophthalmoscope room he could not see the single gas flame, but on a strong light being thrown into the eye by the reflector he exclaimed, "Now I see a light!" Thus there appeared no room for doubt but his perceptive power with this eye was of the feeblest possible description, and only extended to the recognition of brilliant lights. He was taken immediately after this examination to the operating theatre, and Mr. Hutchinson again performed the operation on both eyes. As soon as the effect of the chloroform had sufficiently passed off, Mr. Critchett carefully tested the boy's sight. With the sound eye covered he could distinguish all large objects, could tell the difference between coins, see watch-hands, &c., although he could not see to read. A week later, vision had not much improved, although the parallelism was perfect. He could, however, easily recognise all large objects. There was a degree of double vision, and as the pupil was still widely dilated and immovable from the effects of the belladonna used a week before, there appeared every reason to hope for much further benefit.

Mr. Dixon, in his excellent work on Diseases of the Eye, the most recent English authority on the subject, remarks, "It is a remarkable fact, that in some instances of well-marked internal strabismus, although, by merely covering the other eye the squinting one can be brought into a perfectly straight position, it is nevertheless incompetent to distinguish even large letters, and yet within a few minutes after the tendon of the internal rectus has been divided, this same eye will make out small type—*brevier* or *minion*." Although this deficiency of sight exists to a greater or less degree in almost all cases of strabismus, and is remedied more or less completely by all successful operations; yet, we are not aware that any more satisfactory explanation of it has been given than that the images on the retina are disturbed by the irregular compression of the globe. Such a theory, however satisfactory as regards the less marked cases, can scarcely explain such extreme deficiencies as existed in those which we have recorded above.

This fact, now so well proven, that operations for strabismus not only improve the personal appearance, but remedy a serious defect in vision, is of much importance and interest. The late Mr. Adams published on Muscular Amaurosis soon after this operation was first proposed, and added another to the numerous ones already recognised in support of the law, that beauty and symmetry have a close connexion with perfection of function, and that deformity is not a mere offence to the eye, but is almost always associated with some serious physical defects. We see also in it an illustration of how when man, in pursuit merely of the beautiful, succeeds in the restoration of true symmetry, his action ends not there, but "serving a second to some other use," at the same time remedies an important practical want.

With regard to the mode of operating for strabismus, it appears at last to have been brought to perfection. The subconjunctival method is now almost invariably adopted at Moorfields, and in severe cases both eyes are operated on at the first sitting. It is very rare indeed that any other result is obtained than a perfect restoration of symmetry. Thus the caruncle is never in the least interfered with; no risk of eversion is encountered; the minute wound in the conjunctiva unites by adhesion, and no granulations ever form. The healing is usually complete in a day, the ecchymosis disappears in about a week, and the cure is finished in a fortnight. For some months, however, improvement in the sight of the affected eye is progressive.

THE DREADNOUGHT SEAMEN'S HOSPITAL.

DEPRESSED FRACTURE OF FRONTAL BONE—NO SYMPTOMS—RECOVERY.

(Under the care of Mr. TUDOR.)

(Reported by Mr. CROFT.)

Thomas Chapman, æt. 32, was admitted June 14, 1857, having been just before struck violently by a swinging iron hook on the forehead. The force was sufficient to knock him down, but not to render him insensible. The integuments were lacerated in a straight line down the right side of the middle forehead. This wound exposed a vertical fracture of the frontal bone. The right edge of the fracture was depressed to a degree equal to the thickness of the bone forming the left edge. He complained of no disturbance of brain, and presented no symptom whatever.

July 4.—About twelve hours after admission he became rather drowsy; his pulse rose to 120, and his respiration began to be hurried. At once 18 ounces of blood were taken by venesection, and one-eighth of a grain of antimony was ordered to be administered every four hours.

About a week after this all symptoms of disturbance of brain had subsided.

Nov. 15.—He is now about to leave the Hospital, being quite recovered.

This case illustrates an observation often before made, that fractures of the skull produced by blows are as a rule less

likely to be followed by bad symptoms than those the result of falls. In the latter there is much more of concussion of the brain substance sustained, and hence their liability to go wrong. Much more violence is also needed to fracture a skull by a fall than by a sharp blow over a limited area.

NOTES AND QUERIES.

He that questioneth much shall learn much.—Bacon.

No. 220.—Ruspini's Styptic.

Will you allow me to put the question among your Notes and Queries, if any of your readers can inform me what is the true composition of the nostrum called "Ruspini's Styptic?" One writer (Dr. A. T. Thomson) says that it is sulphate of iron; another (Dr. Pain) that it is gallic acid; but it is so easily proved by testing with these agents respectively to be neither one nor the other, that it is surprising that statements so careless and so easily tested and disproved should be made in works of professing authority. No black reaction is produced by either, as would certainly be the case if it contained one or the other. I have used the preparation extensively, and have been led by this experience to think highly of its efficacy, particularly in pulmonary and in some forms of uterine hæmorrhage. If I am asked on what evidence I rest this opinion, my reply must be that it is the same as that which applies to approved remedies in general, results—when one event follows another with more frequency than would be consistent with the idea of accident or coincidence, as in the case of a particular change following the use of a special remedy—we are warranted in concluding that they stand in the relation to each other of cause and effect, and that the "propter" has something to do with the "post." The whole science of Therapeutics rests on no better foundation. Experience must be its *ultima ratio*. A great objection to the remedy is its costliness, which makes it desirable to find a cheaper substitute. I endorse my name and address confidentially. M.D.

Nov. 16, 1857.

P.S.—It must be borne in mind that some of our best remedies were orignally "nostrums."

No. 221.—Hair of Polar Animals.

Can any of your readers inform me if those animals inhabiting northern latitudse, that become white at the approach of winter, lose their brown hair, and have it replaced by white; or if merely a reabsorbtion of the pigmentary matter takes place? Δ.

Nov. 19, 1857.

No. 222.—Depilatories.

Is there any medicinal agent known which, without injuring the skin, destroys hairs, and prevents them from growing again on those parts of the human body where hairs are inconvenient? Charles Lemoine, M.D., Paris.

Francis Cottage, Camberwell,
Nov. 18, 1857.

Dublin Natural History Society.—The first meeting for the present session of the above Society was held on Friday evening, the 13th instant, the President, Dr. Harvey, Professor of Botany in Trinity College, in the chair. The following officers were elected for the year 1857-8.—*President*—W. H. Harvey, M.D., F.L.S., M.R.I.A. *Vice-Presidents*—His Grace the Archbishop of Dublin, Lord Talbot de Malahide, M.R.I.A.; Sir Edward Borough, Bart, M.R.I.A.; C. P. Croker, M.D., M.R.I.A. *Council*—John Aldridge, M.D., M.R.I.A.; Henry M. Barton, F. W. Brady, Robert Callwell, M.R.I.A.; James R. Dombrain, A. H. Halliday, M.R.I.A., F.L.S.; Samuel Gordon, M.D., M.R.I.A.; Rev. S. Haughton, F.T.C.D., M.R.I.A.; Robert J. Montgomery, George B. Owens, M.D.; Gilbert Sanders, M.R.I.A.; Joseph Todhunter, E. Percival Wright, M.R.I.A. *Treasurer*—Richard P. Williams, Esq., M.R.I.A. *Secretaries*—Wm. Andrews, M.R.I.A.; John R. Kinahan, M.B., M.R.I.A.

Two French Medical Men have just left Paris for Lisbon, with the view of studying the nature of the pestilence which has been so long desolating that city.

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Medical Times & Gazette.

SATURDAY, NOVEMBER 21.

PROSTITUTION.

When the ostrich finds that he can no longer hope to escape by running from the approaching hunter, he thrusts his head, the fable tells us, into the sand of his native desert, and so nurses himself into a belief that he is hidden from the gaze of his pursuer. This is just the cunning wisdom displayed by society when it attempts to shun the monster—Prostitution, which still haunts, poisons, and pervades the very body of its civilization. The righteous world would gladly close its eyes and shut its ears to the sounds and sights that meet it at every corner of the street. The innumerable woes and miseries which prostitution brings upon the sons and daughters of man have been regarded as the legitimate consequences of the unholy traffic; and good minds have declared that in these woes was plainly visible the finger of an outraged and avenging Deity. To interfere, therefore, between the evil and its consequences, to endeavour by human aid to assuage their bitternesses, was to come between the Righteous Punisher and the Offending Sinner.

The misery, consequently, has been accepted by the world, silently and in sorrow, as one of the necessary accidents attendant upon a high civilization. Outraged Morality and Religion have felt themselves compelled to act the part of the Levite,—to pass by on the other side, and leave the wounded victims weltering and festering in the pains and penalties of their misdoings.

Such has been, heretofore, the harsh verdict which society at large passed upon the victims of the evil thing; it has repelled them as outcasts from its sympathies, and has marked them as criminals undergoing the due measure of their crimes. Still, thank Heaven, the voice of humanity has never been wholly hushed; pious souls, from time to time, have not feared to shed a ray of better things into this Cimmerian darkness; kindly hearts there have been who did not refuse to hold out a hand of hope and help to the forlorn and prostrate outcast. These little solaces, alas! to individuals were but small pearls dropped into the ocean of suffering vice; they availed nothing towards destroying or scotching the dark monster itself—the *monstrum, informe, ingens, cui lumen ademptum.* But to strike the evil at its root requires the energies of the hero; for this behest is demanded the high soul of a Howard or a Wilberforce,—the man of Christian heart and heavenly courage, of iron purpose and stern resolve; and who can doubt but that the time for his appearance has arrived?

The false reasonings of righteous severity have passed away before the light of scientific research. A busy world of philanthropists are engaged in attempts at solving the many perplexing problems presented to their consideration by the

evils innate in the world. Men are no longer contented to slur passively over the plague spots of humanity; they dive deep into their causes, and strive to strike their remedies home to the very roots of them.

And thus must it be with Prostitution. Impossible that so flagrant a social corruption can longer be permitted to escape the consideration of authority. Its causes and its consequences, even on superficial examination, are found to be of a nature such as to demand the most serious attention of the Legislature as well as the Philanthropist.

Let those who still indulge the cruel fallacies which have brought good men to refuse all aid to the sufferers of prostitution ponder well over some few of the facts that scientific research has brought to light in the matter. The immediate transgressors are not alone sufferers for their sin; the physical mischief engendered by the act is handed down to posterity, to the third and fourth generation; the unborn child is poisoned in its mother's womb. Let the moralist know this, and then ponder over the fact, that between one-third and one-half of all the surgical out-door patients attending our metropolitan hospitals are seeking relief and cure for venereal diseases, and that of the whole number of these about one-half are women and children. Let him know that syphilis left to itself will work its way into the very bones and marrow of a man, and when once fairly lodged is very hard of ejection from his body, and too often remains an abiding resident there—a tenant for life. Let him know that the innocent wife is continually becoming the unconscious victim of her husband's vices, and not unfrequently the husband of the wife's.

The injured constitution of the parent, again, is repeated in a sickly and degenerated offspring, proofs of the fact being daily before the eyes of the Medical men; and Science every day tends to show that the mischief in this direction is even greater than had been once imagined.

The philanthropist, moreover,—can he pretend that in this affair of outraged morality he must bear no part, when he is told that immense numbers of the class called "unfortunates" become so, as it were of necessity, from the very nature of the circumstances which surround them? Both sexes, in crowded lodgings, are herded together like mere animals, and the female is thus reared and bred up to the life of vice which she thenceforward pursues. Proofs abundant also are there for those who require them, to show that large numbers are driven to the state from sheer want—to supply themselves or their children with bread, not from any innate propensity to sin. Impartial Justice will take note of the causes which drive these women to despair, and will fix the guilt rather on the faulty habits of society than on its victims.

Yes, the time has arrived when the veil of modesty, which has been vainly hung around, as if to screen from polite view this painful scene of life, must be torn away. Such modesty now becomes a sin. When so many ill-conditioned by-ways of civilisation are undergoing supervision and repair, assuredly such a one as this may not be passed by. The whole tale must be bared to view; and can any one doubt that the facts so revealed will be pregnant with future good to the cause of humanity?

Our Profession has headed many a noble mission; ever forward in the pursuit of better things to suffering man. We may, indeed, look with pride to the energetic social movements which now busy men's minds; for, in all of these, members of our body have been leaders, and to all of them have given impulse by their strenuous support. Into this dark corner of life, also, it has been the first to enter boldly, the first to throw a ray of hope where neither light nor hope had ever entered before. Well is our's worthy the title of a large-minded Profession; our immediate duties have reference to the cure of the individual, but an investigating spirit leads us on to be *curers* of the great social evils of society at large. Again and again has it demonstrated the cruelty and inexpediency of all temporizing and half-and-half measures, in the face of the great ills of humanity. What is it but a miserable littleness to erect receptacles for the "wretched, low," fevered ones to lie down in, and at the same time to permit the seeds of fever to lie scattered broadcast among the population? What avails it to whitewash the sepulchre, and at the same time permit the elements of destruction to lie rankling within, inviting their fitting guest—cholera—to enter?

The warfare urged by our Profession against the inertness of the world in such matters has not been in vain. And it has now another field for its exertion, wherein victory will be not less honourable. Here must he labour. As Physician, as Philanthropist, as Moralist, he is called upon to exert his energies; and not in vain will be the labour, for no man need wish to earn a nobler laurel than would flourish on his brows who laid the axe to the root of this moral and physical pestilence.

THE WEEK.

A number of distinguished scientific gentlemen were invited to be present at the Brompton Hospital on Friday and Saturday last to witness the commencement of a new series of inquiries by Dr. Edward Smith. The object was to determine the quantity of carbonic acid and vapour exhaled by the lungs in the serial changes of the twenty-four hours. Dr. Smith had invented an ingenious apparatus whereby this could be effected as rapidly as the breath was exhaled; and thus he was enabled to collect and weigh both the carbonic acid and vapour separately, either at intervals, or without intermission for an indefinite period. He also connected with it the spirometer which he had employed in his previous inquiries, so as to determine the relation which the quantity of carbonic acid bears to the quantity of air inspired. In this, his first experiment, he made the inquiries upon himself and two other gentlemen for five minutes at a time per hour, (each succeeding the other in the use of the apparatus every twenty minutes,) and at the same time collected and weighed the vapour and carbonic acid in the air *inspired*. The inquiry began at 2 p.m. on Friday, and ended at 3 p.m. on Saturday, and after the first few hours the apparatus was found to be in perfect order, and good results were obtained. This important inquiry bids fair to add largely to our knowledge of the treatment and prevention of disease, and of the functions of the healthy lungs. The apparatus was also exhibited in operation at the Medical Society of London on Saturday last.

In Dr. Thomson's last monthly report on the Health of Marylebone he makes the following statement as to the water supply of the south of London. He says: "I have ascertained that during part at least of September, the Southwark Company, instead of Thames Ditton water, supplied to the southern part of the metropolis water mingled with sea-water, and in every respect corresponding with what occurs at Vauxhall Bridge near the Company's works." If this be true now that cholera is threatening us, surely some mode of punishing the Southwark Company might be discovered even in the present state of English law. Recurring to Marylebone, Dr. Thomson adds, "The waters supplied to this parish on the 19th of October had the following composition:—West Middlesex, total impurity 18·6 grs., organic impurity 2 grs. per gallon; Grand Junotion, total impurity 19·12 grs., organic impurity 2·3 grs. per gallon. The Lambeth Company's water on the 23rd was 21·12, total 1·72 organic im-

purity. Chelsea water on the 27th was 22·4 total, 2·24 organic impurity. New River on the 28th, total 18·6, organic impurity 1·04. The total impurity of the East London water was 21·2."

The town has been startled by the news that the Physician to the Empress of Russia has turned conjuror, and has been exhibiting his gun, and hat, and pigeon tricks at the Hanover-square Rooms. So said all the Morning Papers, and the Clubs echoed, "What will the Doctors do next?" The mistake has arisen from the translator rendering the French word Physicien into Physician; whereas it implies a natural philosopher, or experimentalist in physics. The clever conjuror's title is "*Professeur de Nécromancie et Physicien* to the Empress;" and we should not be surprised if he is much better paid for his conjuring than the august lady's Doctor is for his prescriptions.

In a letter lately published in a Scottish newspaper, Dr. Laycock, the Professor of Medicine in the University of Edinburgh, advocates the necessity of Medical representation in Parliament. As a striking instance of the national calamities periodically befalling a country which neglects to observe the precepts of sanitary science, Dr. Laycock adduces the destruction of our noble army in the Crimea, not so much by the sword and fire of the enemy as from the ravages of epidemic and often preventible disease. It is justly considered that if Medical men had possessed their due share of influence in the councils of the nation, many, if not all, of the calamities of the Russian war might have been prevented, and hundreds of our brave soldiers might now be surviving to fight again the battles of their country. But Dr. Laycock does not consider it necessary that the representatives of the Medical Profession should themselves be Medical men; indeed, he rather inclines to the opinion that political leaders of high standing should be preferred. There, however, we must join issue with Dr. Laycock, and adhere to the sentiments which we have already professed, that our representatives should be members of our own Profession. We enjoy too few privileges and honours to desire that our functions should be even prospectively curtailed, and we hope that if ever we are fortunate enough to see Medical representatives in Parliament, they may be chosen both by and from among ourselves.

In a Report made to the Vestry of the parish of St. Pancras, Dr. Hillier has brought into notice the character of the water-supply in that populous district. The sources from which the water is derived are three in number, namely, the New River Company, the Hampstead Water Company, and the West Middlesex Company; and it would appear that in all three the water is generally pure and serviceable. But the manner in which it is distributed to the public, and especially to the poor, is by no means free from objections, although many improvements have lately been effected. It is kept in most of the low localities in wooden butts, which are frequently uncovered, often decayed, and lined with filth and organic growths. The situation of these butts is usually near a foul privy, or decaying dust-heap, or in a damp cellar, and the water thus becomes saturated with dust, dirt, and noxious gases. There are a few wells in the parish of St. Pancras, the water in most of which is soft, containing a large quantity of saline ingredients, chiefly alkaline; and some of the well-waters contain a very large amount of organic and inorganic impurities, and traces of ammonia, and are, therefore, unfit for drinking. The microscopical examination of the water supplied by the Companies has sometimes shown the existence of animal and vegetable life, but at other times it has been entirely free from these organisms; the well-waters have shown no organic substances, but the existence of nitrates in some of them would prevent the growth of animalcules, so that the absence of the latter would, in some cases, be an effect of impurity rather than of purity. On the whole, it would appear that the water-supply in the parish of St. Pancras is very fair, according to Dr. Hillier's Report; but that gentleman deserves credit for examining the whole subject, and showing in what respects the present system is capable of improvement.

A coroner's inquest took place at Portsea last week, which has resulted in the following verdict:—"The jury find that Mary Berry died of child-bed fever, but they must express their condemnation of Mr. Rolph's treatment and conduct, as they consider him chargeable with great neglect during child-birth." We have read attentively the evidence adduced during the two days the inquiry lasted: the evidence of the nurse and other women, and the evidence of Mr. Wiblin, of Southampton, and Messrs. Smith, Scale, aad Garrington, of Portsmouth. It is quite clear that professional jealousy among the Medical men of Portsmouth has had a good deal to do with the manner in which this case has been urged on against Dr. Rolph, and that the minds of the jury had been violently prejudiced against him. The case was one in which a portion of placenta was adherent. It was stated that Dr. Rolph had left the patient *three minutes* after the child was born, whereas we are assured that he remained three quarters of an hour, and as there was no flooding, thought it better to leave the remaining portion of placenta to the expulsive efforts of nature, and it was expelled four days afterwards. There had been some flooding in the mean time, rigors, and abdominal pain. Low fever followed, other Medical men were called in, who treated the woman without consulting Dr. Rolph, and she died. The post-mortem appearance showed that she had not died of hæmorrhage, that there had been no peritonitis, that the uterus was in the state usually found a fortnight after delivery, and that its mucous membrane was free from any softening or putrefaction. There were no purulent deposits in any part of the body; indeed a small quantity of fluid at the base of the brain was the only sign of disease observed. We need not enter into the question now whether Dr. Rolph did right or wrong in leaving a woman for four days with a portion of adherent placenta in her uterus. He is a gentleman legally qualified, who has had a very extensive midwifery practice for many years past, and in his judgment it was better to wait for the action of the uterus than to exert a dangerous degree of violence in removing the placenta. We do not say he erred in judgment; but if he did it is perfectly intolerable that he should be ruined for it by the chattering of ignorant women, and the painful and discreditable efforts of jealous rivals. The following remarks by the coroner are worthy of all praise:—"When a man has practised in the town for a certain number of years, attended upon a great number of midwifery cases, and acquired a reputation for skill in his profession, you have a right to presume that such a person does possess an amount of skill which is sufficient to enable him to perform all those duties towards a patient which her case may require. It would therefore be, indeed, a monstrous thing if a man, in a case of misadventure losing a patient, should be considered criminally responsible. The effect upon the members of the Medical Profession would be to paralyse their physical and mental energies. No man would go to a case where danger could possibly occur, without trembling at heart." This is not the first time we have had to allude to the want of brotherly feeling among the members of our Profession at

Portsmouth. We trust sincerely it may be the last. The whole Profession suffers in public estimation by such lamentable disunion.

We have stated that the French Government has sent a Medical Commission to Lisbon, to report on the epidemic fever which has been so fatal there. It is much to be desired that our own Government would follow so good an example. Possibly, the corresponding members of the Epidemiological Society might throw some light on the subject. In the meantime the following account of the symptoms of the disease, from the *Medical Gazette* of Lisbon, leaves little doubt that it is true yellow fever. The remissions, the jaundice, and the hæmorrhages, are all constantly observed in this disease:—"The symptoms of the disease are those which authors have described. The intermittent fever is rare, and even the remittent is not common. Hæmorrhages in the skin and mucous membranes are very common, the yellow colour very general, and very marked in bad cases. One important fact has been observed, and of which Practitioners require to be well informed, not because they misunderstand it, or that authors have not pointed it out, but because it occurs in this epidemic with a deplorable frequency. In the transition from the first to the second degree, one sees patients who appear to be doing well—showing no distressing symptoms—who have not neglected the prescribed regimen, and have not aggravated their condition by any known cause; yet the pulse becomes lower, their strength fails, the head is confused, hæmorrhages appear, the adynamic condition declares itself rapidly, and death supervenes in a few hours, notwithstanding all the efforts of an energetic and prompt treatment. This rapid modification of the disease took place even with patients who appeared well in every respect, and who were put, by precaution, on quinine, wine, and other tonics and diffusible stimulants; it happened with convalescents who ate, who got up, and expected to be soon well. It would sometimes appear that the patient had experienced a second attack of the scourge. Some suffer hæmorrhages, others anxiety; others went into a comatose condition; almost all had hiccup nausea, and delirium."

The Council of Queen's College, Birmingham, have acted upon the Memorial of the Professors. They have reconsidered the appointment of Surgeon to the Hospital, and at a special Council meeting on the 13th inst., the election of Mr. West was declared "null and void." We are informed that the ground assigned was, that his votes had been obtained by premature canvass. Mr. Gamgee was elected forthwith, and Mr. Knowles transferred the wards formally to him in presence of the authorities. On Monday he delivered the introductory lecture in Queen's College. It is said that legal measures will yet be taken, as the friends of Mr. West assert that canvassing was not illegal. Without saying one word against Mr. West, we may still express the hope that the great principle of election by merit and not by interest will be maintained, and that no such absurd mockery will be suffered as an advertisement for candidates after votes have been promised.

Dr. Brown-Séquard has issued a prospectus of a new Quarterly Journal of Physiology. He proposes to furnish a full account of the principal original labours of French Physiologists, and an historical *résumé* of physiological progress in other countries. He will receive the assistance of several distinguished observers in Germany, America, and Great Britain, and we are happy to see the following determination expressed:—"Authors desirous of publishing their works in this journal, will have an absolute liberty of scientific discussion, but the principal Editor believes it to be his duty to declare at once that the object of this publication being solely to advance science, personal disputes will be always completely excluded." What a pity it is that men in high position among us will not act upon this simple rule! If they did so, editorial labours would be much lighter, and more pleasant.

Among the casualties in the recent affairs in India, we find the names of two Assistant-Surgeons as killed—James Allen Bedford and Robert Welbank Macaulay; and D. Mills, of the 83rd Foot, as severely wounded. Yet the claim of Army Surgeons to *military* distinctions and rank is still disputed. It is hoped that the account of Mr. Macaulay's death is erroneous.

M. Emile Groux of Hamburg, the subject of the congenital fissure of the sternum described in an article by Dr. Pavy in another column, is about to visit Oxford, Cambridge, and other principal towns in Great Britain. He was examined with much interest at the Pathological Society on Tuesday, and we can recommend him to the attention of our readers A pamphlet, of considerable value, containing the opinions of eminent men of various countries who have examined M. Groux, has been published by Williams and Norgate.

REVIEWS.

The Chemistry of Wine. By G. J. Mulder, Professor of Chemistry in the Univerity of Utrecht. Edited by H. Bence Jones, M.D., F.R.S., Physician to St. George's Hospital. Pp. 390. London: 1857.

The qualities of wine, which have so often formed the theme of poetry and song, are here submitted to the accurate tests of chemical analysis; and the varieties in flavour and odours presented by different wines are explained, as far as possible, on scientific principles. Every part of the vine itself, the constituents of grape-juice, the component parts of the fully developed wine, the products of its decay and destruction, the diseases to which it is subject, and the adulterations to which it is exposed, are all made the subjects of accurate analytical investigation, and the results are presented in numerous tables, for the accuracy of which the well-known character of the celebrated Professor of Utrecht is a sufficient security. As it is of course impossible to follow Mulder throughout the chemical formulæ and reasoning with which the work abounds, we propose to give a rapid sketch of the chemical history of wine, from its infancy to its decay, that is to say, from the period when it first begins to be formed in the juices of the vine, to its full maturity, and thence to its destruction under the influence of time.

The vine itself, although belonging to a single species, exhibits an infinite number of varieties, and the multitudinous forms which it presents may be estimated by the fact recorded by Mulder, that the French Minister of the Interior caused 1400 different species of vines to be transplanted, *out of France alone*, into the garden of the Luxembourg; and the facility with which such varieties are produced, may be shown by exposing on the same vine one bunch of grapes to the action of the sun, and protecting another by a dark bell-glass, or by oiled paper, and observing the difference in flavour which results from each experiment. The wine is most luxuriant in those countries which enjoy abundant sunshine, although the hottest regions of the world are not altogether favourable to its growth; it appears, indeed, that extremes of heat and cold are alike uncongenial to its habits. Every part of the vine contains potash: the unripe grapes contain a large quantity of tartaric acid, which becomes in great measure converted, during the process of ripening, into sugar. The ripe juice is separated by mere pressure from the grapes, the skins, stalks, and stones being sometimes mixed with the

must. The red wines owe their colour and astringency to the mixture of the skins and other solid parts with the liquid; the white wines are generally prepared from the juice alone, although in many cases the skins are intermixed with it. The crude grape-juice, or must, is at the same time a sweet and acid liquor, the sweetness being due to sugar, the acidity to tartaric acid and perhaps to malic acid. It contains no alcohol, but it has the elements for forming that compound, for it contains sugar and albumen, and by these ingredients, alcohol is developed and wine is formed. The conversion of must into wine is a natural process, requiring only that the juice of the grapes should be collected into appropriate vessels, and be exposed to moderate heat, the heat of the sun being sufficient for the purpose. Atmospheric air is necessary only to a limited degree, and is sometimes hurtful by promoting the formation of vinegar when admitted too freely. The proximate element especially required for the conversion of sugar into alcohol exists in the grape-juice in the form of vegetable albumen, which undergoes decomposition, and by decomposing, becomes a ferment which divides the sugar into carbonic acid, which escapes, and into alcohol, which remains in the wine. The supertartrate of potash which was dissolved or suspended in the grape-juice, is not soluble in the wine, and is therefore precipitated on the sides of the cask. The wine therefore is less sweet and less sour than must, because part of the sugar is converted into alcohol, and most of the tartaric acid is thrown down in the form of cream of tartar. The red wines contain also tannic acid, derived entirely from the skins, for the juice never contains this astringent principle; and when the white wines contain tannic acid, it is owing to the partial admixture of the skins or the stalks with the grape-juice. Wine is kept sometimes in leathern vessels, more frequently in wooden casks, because both these materials allow of the transudation of water but not of alcohol; hence wine preserved for some time in casks improves in strength, more especially when exposed to heat. A well known instance in point is the improvement in Madeira wine, by sending it in casks to the East Indies. Effervescing wines, like the Champagne wines, are those which are bottled before fermentation has entirely ceased, and which therefore contain free carbonic acid. Wine is kept in glass bottles, closed by corks—an improper method of closure, inasmuch as vegetable fungi sometimes make their way through the corks, and spoil the wine. By remaining in bottle, the wine deposits its tannic acid and tartar in the form of crust or beeswing, and therefore becomes more mellow the longer it is kept. But wine, like all other earthly things, is perishable; and after a certain period, different in length in different wines, it undergoes decomposition and decay; its alcohol is decomposed, its colour vanishes, its aroma disappears, and nothing remains of its former self. But besides the natural effects of age, wine is subject to diseases: it may become dark in colour and insipid in taste, or it may become ropy, or bitter, or acid, or mouldy. Lastly, wine, especially in Great Britain, is very frequently adulterated: the adulterations consisting either in the mixture of inferior wines with those of a better quality, in the addition of brandy when alcohol is deficient, or of sugar where that ingredient is imperfectly formed; or what is still worse, of the introduction into the wine of substances which are not produced from the grape at all, and which are added to impart a fictitious flavour or colour.

These are briefly the subjects discussed by Mulder in his "Chemistry of Wine," apart from the technicalities with which, of course, the work is filled; and those who desire to know all that is at present known of the ingredients of wine and the method of determining their nature and proportions, will do well to consult the present treatise, which we may remark has been very well translated by Dr. Bence Jones, from the German edition.

A Guide to the Treatment of Diseases of the Skin; for the use of the Student and General Practitioner. By Thomas Hunt, F.R.C.S. Second edition. Pp. 212. London: 1857.

Nearly ten years have passed since Mr. Hunt presented to the public his views on Skin Diseases; and the first edition having been exhausted, we have now the second before us, remodelled and almost re-written. Mr. Hunt still adheres, with great tenacity, to his advocacy of arsenic as one of the chief remedies in Skin Diseases; and, according to the cases which he records in this volume, the use of this medicine is often attended with remarkable success. The plan of administration which he recommends is to give it in *diminishing* doses, instead of increasing doses, as was formerly the practice. We do not assert that Mr. Hunt recommends arsenic indiscriminately in all diseases of the skin, but he certainly proposes its use in more of these affections than any other dermatologist with whose works we are acquainted.

The Grasses of Great Britain. Illustrated by John E. Sowerby; Described, with Observations on their Natural History and Uses, by Charles Johnson, Esq., Botanical Lecturer at Guy's Hospital. Parts I. and II. London: 1857.

Mr. Sowerby, whose pictorial talents are well known in connexion with the diffusion of botanical knowledge, and who has lately completed a series of illustrations of the Ferns and Fern-allies of Great Britain, has now commenced the description of the British Grasses. The numbers before us contain illustrations and descriptions of the genera, Anthoxanthum, Nardus, Leersia, Alopecurus and Phalaris, and each plate is accompanied by enlarged representations of the organs of fructification: thus conferring a great boon upon the botanical student, to whom the distinctions in the floral apparatus of grasses often present considerable difficulties. The descriptions contain, not only the generic and specific characters, but a great variety of information upon the habits and uses of each specimen. We are informed that the different corn-grasses, although not strictly indigenous to Great Britain, will be described in the series, which will thus comprise a great amount of useful information to the agriculturist as well as to the scientific botanit.

Tenth Report of St. Mark's Ophthalmic Hospital and Dispensary for Diseaes of the Eye and Ear, Lincoln-place. Dublin: 1857.

This Report speaks of the continued prosperity of St. Mark's Hospital in Dublin for Diseases of the Eye and Ear. The system pursued is partly a self-supporting one, each patient paying a small sum monthly to defray the cost of medicines, with the exception of the very poor, who are not compelled to pay anything. Complaint, however, is made that persons who are well able to afford to pay the ordinary fees to Medical men sometimes avail themselves of the advantages of the Hospital at too cheap a rate. The institution appears to be conducted on the principles of strict economy, and it enjoys a great amount of success.

Report of an Operation for removing a Foreign Body from beneath the Heart. By E. S. Cooper, A.M. M.D. San Francisco: 1857.

The case here recorded is one in which, by the bursting of a gun, a slug of iron had penetrated the chest, and lodged itself beneath the heart. Dr. Cooper made an incision into the chest, and removed a portion of three ribs on the left side, and, after very great labour of exploration, he found the foreign body below the heart, and eventually succeeded in extracting it by means of a pair of long lithotomy forceps. The patient was subsequently attacked by pneumonia, but he at length recovered completely, with partial obliteration of the left lung.

Quarterly Report of the Medical Officer of Health to the Vestry of St. Leonard's, Shoreditch. By Robert Barnes, M.D. London: 1857.

This Report contains a statistical account of the sickness and mortality of Shoreditch for the quarter ending the 26th of last September. It would appear, that, notwithstanding the general prevalence of diarrhœa during the last quarter in London, the parish of Shoreditch suffered but little comparatively from that disease. In some incidental remarks made in the course of the Report, Dr. Barnes seems to doubt whether the Thames water is so pernicious to health as has lately been supposed. The Vestry of Shoreditch are congratulated upon having made considerable improvements during the last eighteen months in the sanitary condition of the locality.

The History of the Plague of Athens. Translated from Thucydides, with Remarks explanatory of its Pathology. By Charles Collier, M.D. F.R.S. Pp. 86. London: 1857.

The plague of Athens described by Thucydides appeared in the year 430 before the Christian era, at the commencement of the second year of the Peloponnesian war. Although the symptoms are rather loosely described by the Greek historians Dr. Collier believes that the visitation was one of malignant scarlatina, and he exhibits much learned criticism in reconciling the descriptions in the original with this view. Whether this explanation be satisfactory or not, the classical and Medical reader will derive much gratification from the perusal of this little work. It is mentioned that, although Hippocrates was about thirty years old when this epidemic broke out, there is no evidence that he was then at Athens, and therefore the rumours of his having predicted its arrival, and suggested measures for preventing its extension, must be considered as fabulous inventions.

An Introductory Address delivered in King's College, London, October 1, 1857, *at the Opening of the Medical School. Also an Inaugural Lecture on Materia Medica and Therapeutics; given May* 1, 1857. By George Johnson, M.D., Professor of Materia Medica and Therapeutics, and Physician to King's College Hospital. London: 1857.

The first of these Addresses was delivered lately at the opening of the Medical School of King's College, and we then gave an abstract of its contents. The second is an Introductory Lecture on Materia Medica and Therapeutics delivered on the occasion of Dr. Johnson's assuming the duties of Professor in that department. It is addressed chiefly to young students, and it points out the principles which should guide the practitioner in the selection and use of drugs, and the cautions to be observed in the employment of some of the more powerful medicines.

The Introductory Address delivered at the London Hospital Medical College, at the Opening of the Session 1857-8. By J. C. Wordsworth, Assistant-Surgeon to the London Hospital. London: 1857.

In this Address, of which we published an abstract soon after its delivery, Mr. Wordsworth upholds the dignity of the Medical Profession, and impresses upon its rising members the necessity of devoting the highest powers of the mind to its successful pursuit. He briefly reviews the subjects included in the curriculum of Medical education, and recommends them all to the attention of the students.

PROGRESS OF MEDICAL SCIENCE.

Selections from Foreign Journals.

SUICIDE AND INTOXICATION BY CHLOROFORM.

M. Chereau relates a very interesting case in which suicide was produced by chloroform. It occurred in the person of the head of a house of business, who had met with considerable losses. A sufferer from hemicrania, he became also melancholy, endeavoured to avoid the society of his friends, and exhibited eccentricities which alarmed them. Except the neuralgia, he had not previously suffered from any illness. He had long been in the habit of employing inhalations of sulphuric ether, to a moderate extent, for the relief of the pain; but he now made use of enormous quantities, in the hopes of procuring death; his breath, skin, and clothes, giving out a strong smell of this substance. One day he escaped from the surveillance his family had placed over him, and, having procured 37½ drachms of chloroform from a druggist, he repaired to an hotel, where his manners gave rise to no suspicions. Not having shown himself for more than twenty-four hours after, and a moaning being heard, his door was forced open, and M. Chereau was sent for. He found him with a cadaverous countenance, the presence of life being indicated by a slow, but regular heaving of the chest, and some subsultus of the muscles. The pupils were widely dilated and insensible, the mouth half-open, and the tongue dry and parchment-like. The jugular veins were distended, and the fingers were convulsively pressed against the palms of the hand, leaving impressions of the nails. The whole surface of the body, front and back, and the extremities, was covered with lividities, exactly like those often observed on dead bodies, or in individuals asphyxiated by carbonic acid gas. The heart still beat, but so feebly that it required sustained attention to perceive its weak and rare contractions. The pulse was felt with still greater difficulty. The respirations were sometimes irregular and short, at others deeper, and separated by long intervals. The bladder was distended, and the bed-clothes were stained by urine that had escaped. A fire was lighted in the grate in order to create a current of air, the room being filled with suffocative emanations. The whole surface of the body was rubbed with heated cloths, insufflation was performed from mouth to mouth, and several cups of very strong coffee were administered. At the end of the first hour the patient, by repeated calling to, could be got to answer in some sort; and the appearance of hebetude and stupidity had not entirely passed away in another hour. He looked around him, and the pulse furnished 50 feeble, depressible pulsations. He continually twisted himself about in bed, suffered from an unquenchable thirst, and complained of a terrible pain in the left hypochondrium. No avowal of the deed could be extracted from him; but the smell sent forth by every column of air expelled from his chest, and the discovery of the bottle, sufficed for an explanation. The hopes entertained of continued amendment were not realized. The pulse did not rise, the countenance did not improve, and the excessive pain in the hypochondrium resisted all attempts for its relief. His friends, moreover, without the consent of his attendant, removed him from the hotel to an Hospital; and although he retained his consciousness on the road and conversed, he died when he reached the doors. No autopsy was allowed.

In a subsequent number of the journal in which this case appeared, M. de Mérie, of London, related one of excessive use of chloroform that had occurred to himself. A chemist, 30 years of age, originally of good constitution, having, a few years since, become habituated to the use of morphia, while taking it for abdominal inflammation, found that it took no effect in relieving sleeplessness, from which he frequently suffered. He therefore substituted inhalations of chloroform, to which he became addicted, and the more so, because he sought by their means to render himself insensible to chagrin, which was more imaginary than real. His excessive employment of chloroform was discovered by his family some three years since, it then being found that he passed portions of days, and especially the nights, under its influence, thus procuring a factitious sleep, and perhaps fantastic dreams. His countenance had become altered, his manners were strange, and his moral disposition was impaired. For a time, through the influence of a relative, the habit was restrained; but the use of the chloroform was resumed, and he is supposed to have indulged in it for the space of five years. He remained in bed until twelve or one o'clock in the day, repeating the inhalations whenever he awoke; and during the day he had the appearance of a man given to drink. He employed about a pound every five or six days; and on arousing from the influence of the chloroform he suffered not the slightest uneasiness from its employment, escaping the headaches and other inconveniences suffered by those who consume alcoholic fluids in excess. On the 8th August, returning home by the railroad, after making a purchase of chloroform, and possibly while under the influence of this substance, he fell from the carriage and broke both his legs. Double amputation became necessary. The patient was exceedingly feeble; but, in spite of the habit he had acquired, there was no difficulty in rendering him insensible by chloroform. To morphia, however, which was administered to him after the operation, he was completely insensible, and it became impossible not to yield to his entreaties to be allowed to inhale chloroform. He made, under the superintendence of a dresser, constant use of this at short intervals, and in forty-two hours after the operation died completely exhausted. No autopsy was allowed, and decomposition of the body ensued with frightful rapidity.

M. Vigla, quoting the above cases, states that he had already related a case in the *Moniteur des Hôpitaux*, 1855, exemplifying the effects of the excessive use of chloroform. His patient was an engraver, 33 years of age, of robust con-

stitution, and who had always enjoyed good health until his thirtieth year, when he became the subject of spasmodic asthma. He had employed every variety of means without avail, when in April, 1855, his Medical attendant advised the inhalation of chloroform. This was to some extent successful; but the tolerance of the remedy becoming established, the patient went on, of his own accord, increasing the dose, until this had become enormous. Thus the mean daily quantity he inhaled between the first and tenth of May amounted to ʒ52½. Jaundice coming on, on the 14th of May he diminished the quantity during four days; but, the paroxysms becoming insupportable, on the 18th he inhaled the enormous quantity of ʒ112½. At the beginning of June a new attack of jaundice occurred; he again suspended the anæsthetic, and again the paroxysms increased. He returned to the inhalations, and from the 4th to the 25th of June, the day he entered the author's *maison de santé*, he consumed about ʒ40 per diem. In spite of these large doses, he was only slightly relieved, slept but little, and was constantly in a state of hebetude, from which the paroxysms scarcely aroused him. When he was admitted into the *maison*, his countenance was peculiar, his brilliant but moistened eyes, expanded features, and smiling lips, giving him the appearance of one ravished with delight, or under the influence of a commencing intoxication. For two or three days after his admission small quantities of chloroform were still allowed; but delirium tremens then supervening it was entirely cut off. The delirium tremens continued from the 27th of June to the 4th of July—his delusion consisting a portion of the time in supposing that he was the subject of and in constant danger of poisoning from chloroform. On the 4th he still exhaled some of the odour of this substance, although he had not employed any of it since the 27th June. His attacks of asthma had ceased, and he left the establishment 8th of August. Seen since that time, however, it has been found that his asthma has returned; but his reason has continued free, and he declares he has not again attempted the use of chloroform.—*Union Méd.*, Nos. 106 and 112, and *Journal de Pharmacie*, Oct., pp. 308-18.

EXCERPTA MINORA.

Sugared Sulphate of the Protoxide of Iron.—It is very difficult to prevent superoxygenization of sulphate of iron, while, for various chemical and pharmaceutical purposes, it is of importance to have a pure sulphate of the protoxide. M. E. Latour, a chemist in the Algerian army, states that sugar will preserve this unaltered; while the salt so prepared is of a constant composition, and crystallises regularly. Dissolve, on the one hand, 200 parts of the sulphate in 100 of boiling distilled water, and on the other, 50 of sugar-candy in 30 of boiling distilled water. The two solutions are then to be mixed, rapidly filtered, and crystallized at a temperature of from 95° to 105°. The crystals are to be dried on paper, and closed up in a very dry bottle. By concentration additional water is driven off, and the crystals are found to consist of sulphate of the protoxide 54·57, water 32·50, sugar 12·93.—*Gaz. des Hôp.* No. 126.

Chloroform in Intermittent Fever.—M. Delioux, a Professor in the French Naval Medical School, has long been engaged in searching for succedanea for quinine. Having observed that when he administered chloroform to phthisical patients, that it not only relieved the pain in the chest and cough, but also moderated the fever and nocturnal sweats, he conceived it might possess febrifuge powers also; and the result of numerous trials is the ample verification of his supposition. He forms a syrup, by adding 5 parts of chloroform to 100 of simple syrup, of which he gives from ʒj. to ʒiij. in a mixture, at the same intervals at which quinine would be given.—*Union Méd.* No. 129.

The Puerperal State as a cause of Endocarditis.—M. de Lotz has presented to the Acad. de Méd. an account of five cases of endocarditis (two with autopsies) arising during the puerperal state. M. Bouillaud, reporting on this paper, observed that the author's cases, though not conclusive, should direct attention to the question they raised, viz. whether the puerperal state may not be the immediate cause of the heart disease. It would, however, be very desirable first to be able to precisely point out the primary cause of the puerperal state itself. In judging of its influence on the heart, we must also closely examine whether the patien has not been the subject of rheumatism or thoracic inflammation, also that no typhoid or specific fever, as variola, &c., has preceded.—*Bull. de l'Acad.* tom. xxii. p. 750.

FOREIGN CORRESPONDENCE.

FRANCE.

[From our Paris Correspondent.]

Paris, November 16, 1857.

A lecture of Professor Trousseau, and a paper of Professor Sédillot, of Strasburg, are well worth the attention of Practitioners. The lecture and the paper relate to almost the same subject, which is thoracentesis. Professor Sédillot proposes a method of treatment of empyema, or pyothorax, which he considers as new, and much superior to the methods hitherto employed. The simple puncture of the chest he thinks only able to retard death for a short time. A second method consists, first, in emptying more or less completely the cavity in which is the effusion, and then in employing force to keep the walls in contact. The canula and bladder of M. Reynard, the aspiring pump of M. G. Guérin, acting during inspiration, produce the diminution of the thoracic cavity, and make the lungs break the false membranes which surround them. This method is perhaps the most dangerous of all: it excites a great congestion of the pseudo-membranes; there is a real sero-purulent wound; there are partial hæmorrhages, and air soon passes along the canula into the thorax, and alters the pus, so that ulcerated or gangrenous inflammations and purulent inflammations rapidly cause death. In a third method, a large opening is made between two ribs, and the cure is obtained by injections. Against this method M. Sédillot says that air enters in the wound, which becomes ulcerated, and extremely painful, and the patients die under the influence of the complications, which exist also after operations by the preceding method. To avoid these dangers, Professor Sédillot establishes as a rule that we should never allow the whole of the liquid effused to come out. To prevent the introduction of air, he perforates a rib, and places in the opening either a silver canula or an india-rubber sound. To obtain the modification of the pyogenic membrane he employs injections, and also the application of potential cauteries on the chest. Professor Sédillot has employed this method several times. One of his patients lived a year, although he was in very bad circumstances. Another patient, operated upon in a dying condition, has been cured.

The lecture of Professor Trousseau concerns three patients, upon whom he has practised thoracentesis. One of these patients was an Italian, 26 years old, who lived a very irregular life, and was every day exposed to causes of pleurisy. He took cold, coughed a great deal, and tried to be cured by steam and Russian baths. He had no expectoration, perspired a great deal at night, and after eating he often coughed very much and vomited. He became emaciated, and at last, after two months, came to the Hospital. When Professor Trousseau saw him he had no fever; he was very weak, pale, and thin. He then had but a slight cough, and no blood in the mucus of the expectoration. His fingers had the hippocratic deformation so frequent in consumption.

Percussion showed a little less resistance to the finger, and an exaggeration of the sound under the left clavicle. Respiration was accompanied by souffle, while in the right side there was a puerile respiration and the sound was normal. In some parts of the left side there was tubular murmur, expiration was prolonged, and there was bronchophony. After coughing there was a subcrepitant râle. The diagnosis was difficult; the absence of febrile symptoms prevented to admit the existence of an acute pneumonia. As to tubercular consumption, if many of the symptoms seemed to lead to the idea that there were pulmonary caverns, there was in opposition to this view an absence of many symptoms (no hæmoptysis, etc.). Prof. T. thought, in consequence, that this was a case of that kind of chronic pleurisy well described by Messrs. Rilliet and Barthez, and subsequently by M. Béhier.

Fifteen days after the admission of the patient into the hos-

pital he was almost suddenly attacked with a violent pain in the left side of the chest. This pain, which increased after coughing, prevented free breathing, and was the cause of great anxiety. There were then from 36 to 40 inspirations in a minute, although the pulse, soft and thin, remained at 84, its normal number. In the evening of the same day fever appeared, and the pulse rose to 116—120. Respiration was so much disturbed that it was impossible to hear anything. The next day the pain and the fever had much diminished, and the symptoms of pneumothorax became evident; there was an excessive dilatation, and an increased severity of the left side of the chest, from the angle of the scapulum to the lower part. There were no vibrations of this side of the thorax, while in some parts the souffle had a metallic resonance, and in others it was amphoric. The voice was also amphoric. Besides, as Laënnec had vaguely remarked long ago, and as Prof. T. has shown in such cases, when the ear was placed upon the posterior part of the chest, if percussion was practised upon the anterior part, with the help of a metallic plessimeter and of a hammer or a piece of money, a sound was heard resembling that which would be produced in the percussion of an empty cask or of a metallic vase.—Two weeks later signs of hydrothorax appeared.

The state of the patient gradually became much worse, and he was attacked with a dysenteric diarrhœa. A new symptom then appeared. The hippocratic fluctuation, when the patient was shaken, was manifestly heard. It was therefore quite certain there was a hydropneumothorax. Professor Trousseau hesitated to perform thoracentesis; he was afraid of hastening death by producing a more violent inflammation than that which already existed. Besides, although Laënnec says that the presence of tubercle in the lungs, in such cases, ought not to prevent the performance of the operation, Professor Trousseau thought that, if his patient had tubercles, it was almost useless to try to save his life for a short time. Even if the patient had no tubercles there was but little chance of success for the operation, as he was an adult. Had he been a child, Professor Trousseau would have had no hesitation, as he knows many cases of success; M. Legroux, for instance, has been twice successful, and Professor Trousseau three times, in children. However, the patient being almost dying, Professor Trousseau decided to perform the operation, and not being afraid of the introduction of air in the pleural cavity, as there was air already, he employed the method of the ancients, the incision of the chest with the bistoury. He made it between the seventh and the eighth ribs, and found that the liquid which flowed out seemed like a slightly opaque serosity, without pus. He was much surprised, as he expected a purulent fluid. An india-rubber sound was introduced, and nearly two litres of serosity came out. He injected half a pound of a solution of 50 grammes (one ounce and two-thirds) of tincture of iodine, and 5 grammes (100 grains) of iodide of potassium. He allowed a certain amount of the injection to come out, and he closed the wound with large bands of diachylum, turning round the body of the patient.

There was but very little distress produced by the operation. The general health of the patient became better, but the symptoms furnished by auscultation and percussion were the same as before the operation. A week after, fever and diarrhœa appeared, and the expectoration became muco-purulent. Hectic fever continued for a month, gradually increasing, and the patient died six weeks after the operation. The autopsy showed that the whole left pleura was covered with pseudo-membranes, and its cavity filled with a white and thick pus, without fetidity. There were tubercles and small caverns in both lungs.

This case, says Professor Trousseau, shows how exaggerated are the fears of a number of Physicians concerning thoracentesis, as this operation made on a phthysic has caused no accident. The same conclusion must be drawn from two other cases in adult men, upon whom Professor Trousseau has successfully practised thoracentesis quite recently. In both of these cases the operation was performed, as we have said in the history of the preceding case; there was a purulent liquid in the chest, and, nevertheless, the patients have been cured.

E. J. Spry, Esq., Surgeon, has been elected Mayor of Truro.

GENERAL CORRESPONDENCE.

POOR-LAW MEDICAL REFORM ASSOCIATION.

[To the Editor of the Medical Times and Gazette.]

Sir,—I shall feel obliged by your laying before the Profession the reply of the Poor-law Board to the letter I addressed to them about six weeks since, a copy of which you kindly inserted in your Journal, and I beg to call the attention of the Union Medical officers to that part which refers to the assistance requisite to be obtained to perform a capital operation. I have carried out the advice of the Poor-law Board; and deeming the aid of three Surgeons to be necessary for the safe amputation of a limb above the knee, I called them in, paid them one guinea each, and with the annexed letter to the Board of Guardians forwarded their acknowledgments. Last Tuesday the Board sent me cheques drawn in the names of the three gentlemen and requested fresh receipts from them to the Board, thus making it their own act; these gentlemen are unconnected with the Union, which in this case was intentional on my part in order to test our power on that head. I regret much that the Poor-law Board have left doubtful the result of future applications for payment; I hoped they would say definitely, "It is right to have assistance to perform a capital operation, and the Guardians must pay for it;" but no! the Union Medical officer must get help if requisite, but it is left open to the Guardians to determine afterwards whether the "case was of such unusual and exceptional character, as to warrant them in making a special allowance for the assistance so rendered." Such uncertainty forcibly illustrates the necessity of a legislative enactment, for which I am preparing; and shall shortly be in a position to submit for the approval of my brethren the draft of an act of Parliament. I have made copious extracts from the statutes in force, relating to the poor since the time of Elizabeth, and am also arranging the cases connected with the Profession that are recorded in the official circulars of the Poor-law Board, which I am desirous to lay before the Members, individually, of both Houses of Parliament in order to prove as far as possible by the statements of the Poor-law Board itself the necessity for each section in the Act to be proposed. It would also be advantageous to the Union Medical officer to possess these materials, that each may have it in his power to understand thoroughly the laws, "rules, orders and regulations" by which he is supposed to be governed: printing this compilation, however, will depend entirely on the pecuniary support the Association receives, as 4,000 copies will be required. During the last two years upwards of £500 have been expended, and in the next six months a large amount will be required to enable us to take measures to convince the Legislature of the great need of a reform of the whole system—not only for the sake of the Union Medical officers, urgent as that is, but what is of more importance, for the benefit of the sick poor, and I might add the rate-payers also, as the mismanagement of the one must seriously affect the interests of the other.

I am, &c.

Richard Griffin.

12, Royal Terrace, Weymouth,
16th Nov. 1857.

Poor-law Medical officers in communicating with Mr. Griffin are requested to give the name of their Union in addition to their address.

Poor-law Board, Whitehall, S.W.
October 15, 1857.

Sir,—I am directed by the Poor-law Board to acknowledge the receipt of your letter of the 29th ult., respecting a poor person, named Puckett, who is under your care as one of the District Medical officers of the Weymouth Union, and the application which you have made to the Guardians for an order for three Medical men to assist you in the case, in the event of an operation becoming necessary.

With reference to the statements contained in your letter, the Board desire me to remind you that the fees which, under the General Regulations, were payable to the Medical officers of the Weymouth Union in midwifery and surgical cases have been commuted, and are now included in the fixed salaries of those officers, this alteration having taken place with their express consent. If, therefore, in the case of the poor person

referred to, amputation of the limb should unfortunately become necessary, you will not be entitled to any extra payment for your services in performing the operation.

As regards the application which you have made for an order for three Medical men to assist you in the amputation, I am directed to state that the more regular course under circumstances such as you describe is, that the Medical officer himself (when he deems it needful to do so) should obtain any additional professional aid which may in his judgment be necessary, and after the operation has been performed submit the facts to the Guardians. It then rests with them to determine whether the case was of such an unusual and exceptional character as to warrant them in making a special allowance for the assistance so rendered. The Board are not aware of any reason why this course should not be adopted by you in the present instance.

With reference to the alleged inadequacy of the salary which you receive for your services as Medical officer, the Board can only refer you to the communications which they have already addressed to you on the subject.

I am, Sir, your obedient Servant,

COURTENEY,

Richard Griffin, Esq. Secretary.

12, Royal-terrace, Weymouth,
October 26, 1857.

SIR,—In consequence of the remarks made by Mr. Inspector Gulson in my District Medical Relief Book (Sept. 14, 1857), I wrote to the Poor-law Board, and received the annexed reply. I have carried out their suggestions, and obtained the additional professional aid actually necessary to enable me to amputate the thigh of Mary Puckett. I enclose the receipts for the fees paid by me to Drs. Brown, Coucher, and Moorhead, and shall feel obliged by your reimbursing me the amount.

I am, Sir, &c. RICHARD GRIFFIN.

To the Chairman of the Board of Guardians,
Weymouth Union.

AMPUTATION AT THE ANKLE-JOINT.

[To the Editor of the Medical Times and Gazette.]

SIR,—In the *Medical Times and Gazette* for last week, is a letter from Professor Syme respecting Amputation at the Ankle-joint. In the course of some remarks the writer observes, "In lately reviewing a book on Surgery, you quoted the opinion of the author that this operation *should be abandoned*, (a) on account of the stump having been found unsatisfactory." As the writer of the review of the book in question—Mr. Fergusson's "Practical Surgery"—I beg to state that it is incorrect to affirm that the opinion of the author as to the necessity of abandoning this operation was quoted. The statement made in the review was to the effect that the author of the work had had occasion, after additional experience, to modify his former views in favour of the operation, as he had not found the stump useful to the patient.

On looking very carefully into the work, I cannot find that Mr. Fergusson has anywhere recommended that the operation should be abandoned; and it is, therefore, equally incorrect in Mr. Syme to give that gentleman credit for an opinion which he does not express. I deem it a duty both towards Mr. Fergusson and the readers of your Journal, to quote the very words of the author respecting this matter, so that they may judge for themselves how far Mr. Syme's statement is correct.

"I have now had considerable personal experience in this operation, and have seen some excellent results from it; but I regret to state that the early impressions I had formed of it, as expressed in the last edition of this book, have been greatly modified. What with violent inflammation extending up the leg, sloughing, secondary hæmorrhage, death immediately dependent on the operation, tardy healing of the wound, and defective condition of the stump, from languor of circulation and tenderness, so that it could not be pressed upon or made useful, I have formed a most unfavourable impression against it. It will suit for accident (as has already been stated in my observations on compound luxation of this joint, at page 356), as well as disease, and there need be little doubt that many such feet as that represented in figure 245 (a likeness of disease in the tarsus, for which amputation in the leg was resorted to), will be best treated in this way. Even should the ankle-joint itself be the principal seat of disease, the operation may be performed; for it is seldom that there is more than a thin layer of the articular surface of the tibia affected in such cases. If length of limb and stump, and a perfect covering to the ends of the bones be advantages, certainly this proceeding affords them; and there are other seemingly good reasons for adopting such an operation; for which, however, I must refer the reader to my notice of amputation at the knee."—P. 487.

It will thus be seen that so far from recommending the operation to be abandoned, Mr. Fergusson, although compelled as an honest man after mature experience to speak in unfavourable terms of it, actually takes pains to point out its advantages over some other modes of proceeding; and your readers will at once perceive how erroneous is the statement of Mr. Syme, that the author of the work had expressed an opinion that the operation should be abandoned, or that the reviewer had made Mr. Fergusson utter such an opinion.

Mr. Syme ends his letter by saying, "The duty of a good Surgeon is to discover his errors so as to avoid them, and not to parade their bad results as a reason for relinquishing beneficial treatment." Every wise man will echo this sentiment; but at the same time I must confess I am at a loss to discover in the extract from Mr. Fergusson's book any such "parade." It appears to me that that gentleman has very candidly spoken of the unfavourable accidents which may happen after amputation at the ankle-joint, and has not contented himself with saying that he has "seen some excellent results from it." Well would it be for Surgeons, if all those who publish their personal experience would be equally candid in speaking of the bad results of their operations, and not confine themselves to reports of those only which happen to turn out successful.

With regard to the strictly surgical aspect of this question, I may say that, in common with many other Surgeons in London, I have had repeated opportunities of judging of the value of amputation at the ankle-joint, and I can bear witness to the force of Mr. Fergusson's statement, that various circumstances occur to render the efforts of the Surgeon futile as regards making an efficient stump for the patient, even although there may be plenty of soft parts; at the same time I have witnessed good results from the operation, and I will again venture the opinion expressed in the review, that the operation should not be entirely discarded, and that a greater care in selecting the cases may be attended with more favourable results.

Before concluding, I cannot help referring to the evidence brought forward by Mr. Syme in favour of the utility of the stump after this operation. Three very satisfactory cases are mentioned—but strange would it be, indeed, if Mr. Syme could not bring forward three or more successful cases, seeing that he has been in the habit of performing the operation for fifteen years; and with his predilections for the practice, and his great opportunities, he has probably had many such operations. Will Mr. Syme tell us in how many instances failure, in some shape or other, has resulted?

I am, &c.

THE REVIEWER OF MR. FERGUSSON'S "PRACTICAL SURGERY."

(a) Italics are my own.

TYPHUS AND TYPHOID.

[To the Editor of the Medical Times and Gazette.]

SIR,—In your notice of the new edition of Dr. Watson's Lectures, you have quoted a paragraph in allusion to the altered views now generally held in reference to the specific identity, or otherwise, of the various forms of continued fever. Dr. Watson here ascribes the great merit of pointing out the distinctions between certain forms of fever to Dr. Jenner; while in a foot-note he instances the fact that in Paris, Dr. Alexander P. Stewart, and in America, Dr. Bartlett, had already propounded doctrines to the same effect.

I would not wish to depreciate or to detract from the labours of these observers; but a sense of justice impels me to see that the labours of another, antecedent to any of these, should not be passed over and ignored.

As long ago as the session of 1835-6, Dr. Perry, then Phy-

sician to the Glasgow Royal Infirmary, was constantly pointing out at the bed-side the distinction between typhus and typhoid fevers, and distinctly taught the exanthematous nature of typhus, and the constantly present lesions of the intestinal glands and follicles in typhoid. Dr. Perry's views were, if I mistake not, published in the *Edinburgh Medical and Surgical Journal* about that time; and although all his opinions may not be borne out by subsequent observations, yet there can be no doubt that he had the clue which has led to the fuller elucidation of the class of continued fevers.

I am, &c. JAMES COOPER.

Cromer, Norfolk, Nov. 10, 1857.

CONSTRICTION OF THE THORACIC AORTA.

[To the Editor of the Medical Times and Gazette.]

SIR,—Since the publication in your pages of my Lecture on Constriction of the Thoracic Aorta, my attention has been drawn to a notice of two cases (Wochenblatt der K. K. Gesellschaft der Aerzt zu Wien, 1855), in which Professor Skoda also made the diagnosis of that state during life.

I am, &c. W. H. WALSHE.

London, Nov. 1857.

MEDICAL ETHICS AND ABORTION.

To the Editor of the Medical Times and Gazette.

SIR,—It is strange, certainly, how men will persuade themselves to the contrary of their own genuine convictions, and the means they will take to escape the obloquy of seeming to do so are no less singular. An instance of this may be found in a letter from Derry, bearing the above heading, addressed to you, and published on the 7th instant. The writer signs himself "M. D. Hiberniensis," and his truly ingenious mode of compounding with his conscience is to propose the matter on which he is at unrest as a nice question of morality, and by raising a discussion, and thus, making the point appear to be arguable and doubtful, relieve himself from the responsibility of deciding, and lay his scruples asleep by the exercise which the difficulty of solution of his problem suggests.

Now, the question proposed by this conscientious and ingenious Hibernian is the following. He states that he had been called in to attend a young woman suffering from hæmorrhage after a miscarriage, with the fact of which none of her friends were acquainted, which had taken place some few hours before, and which she had endeavoured to keep undiscovered by secretly burying the untimely fruit of her guilty error. "M. D. Hib." then states that the unhappy patient begged of him not to reveal the above facts, the true cause of her ailment; in his own words, "not to betray the confidence she had reposed in me." This is certainly putting the question nicely. A breach of confidence is a moral crime; he candidly admits that the aiding and abetting this unfortunate young woman in the concealment of her guilt is also a moral crime; and then, with equal ingenuousness, asks for a decision in this conflict of morality. He asks, "Is it altogether right or judicious in the Medical attendant to become the confidant of a woman under such circumstances in regard to her moral guilt?" and proceeds thus:—"I know I may be answered that I am to alleviate suffering, irrespective of its cause." In what sense this can be called an answer to the question we are at a loss to imagine. There seems to us about as much relevancy in it to the question as there existed in the little black destroyers of the traveller's slumbers to the name of Stony Stratford. But we are hasty; our "M.D." next goes on to admit this; he only claims a little reflection to find it out, and then proceeds to state a number of embarrassing fears as to his position, in case it should be found out; and then comes at last to a few words on what ought to be, in our opinion, the whole gist of the matter, its criminality. "We cannot be sure," he says, "that there is not criminality involved."

Let us now pause in our observations on this letter, and turn our attention to the question it contains (not proposes), viz., whether it be right or wrong of a medical man, in circumstances similar to those of this case, to yield to the wishes of his patient, and to aid in the concealing of her guilt.

This question, we submit, is not a moral one; it is not a case where a physician is invited, under a special undertaking and promise of secrecy made beforehand, to attend a case in which he must attain to the discovery of a crime, and where the infringement of that undertaking would involve a moral fault equalling that of the concealment of his discovery; but this is a case where the discovery is unavoidable from the danger of the case, and the consequent necessity of medical attendance, and the position of the patient, which rendered it necessary to call in the physician of the district in which she resided. Now knowledge so derived is not confidence reposed in the physician, nor can he in any sense be considered as her confidant: it may be unpleasant to him to be placed in a position where he, and he alone, must be the person to become first acquainted with the commission of the crime; but that is no ground for altering the course of his duty on the occasion. Then, again, her guilt is not alone moral guilt, but actual legal crime. She is an offender by having concealed the birth of her child—subject under the laws of her country, to the punishment of two years' imprisonment with hard labour; and thus our medical friend is reduced to the position of a man who in the course of his business comes by the knowledge of a crime, and who closes his eyes to its commission, taking no steps for the conviction of the offender. On such conduct it would be needless to comment; it is known already to the law, and stigmatized sufficiently by the name of misprision, and if we consider for a few moments we shall fully see its error.

The law we have mentioned was framed in the wisest spirit, to prevent that horrible system of procuring abortion—a crime little less to the thinking mind than that of infanticide—by directing attention to all cases of premature and concealed deliveries. Now a law with a punishment annexed is designed to and does act in two ways as a preventive of crime; first, by deterring others from the commission of the offence by the example made of the offenders; and, secondly, by preventing a repetition of the offence by the dread of undergoing the same punishment again. In both these respects would the law generally be frustrated by the Medical attendant keeping the matter undivulged; in the first, because some relatives and friends seldom fail to know of the occurrence; and if it could remain unknown to all except the physician, the effect on the mind of the guilty person which a well-merited retribution would produce will be lost. This must occur in every case of concealment.. We cannot think this requires to be dilated upon or further argued. It is self-evident: screen offenders from punishment, and the law becomes a dead letter; and if laws are at all necessary it is self-evident they should be efficient. But, again, independently of the actual guilt which the line of conduct we have been decrying would shelter, would it not also afford a means of escape to a party guilty of the graver crime of procuring abortion? The birth has been concealed, and the body of the child conveyed away; and the proper course to be taken, if the authorities became possessed of the fact, would be to have an examination into the circumstances of the case, and if the unfortunate patient should have committed the crime we have mentioned, why, in the name of common justice, should she escape? What compassion should we feel for the wounded assassin who confesses to his medical attendant his participation in a robbery in which the victim has been foully murdered? and if the physician in such a case is bound (and who will say that he is not?) to cause an investigation to be made, why should a difference be made in the right or wrong of the question merely on account of the degree of the guilt involved?

We do not see why; and we are inclined to think that the Medical Profession generally would agree with us, if they were to consider the question apart from all considerations of selfish interest.

"But och! mankind are unco' weak,
An' little to be trusted;
If *Self* the wavering balance shake,
'Tis rarely right adjusted."

The fear of losing patients and practice by a disclosure of such a discovery, the degree of feeling elicited by the expressions of *soi-disant* confidence lavished upon him, and the moral cowardice in performing the undoubtedly disagreeable duty thus cast upon him, are motives which must weigh heavily on the mind of every Medical man; but he that is "Justus ac terrax propositi," will not fear boldly and righteously to perform the duties which his social and public position demand of him, even although at the risk or to the certain detriment of his private interests.

But for our friend the Hiberniensian M.D., we hope that he may collect from this paper, not to seek for knowledge, if the possession of it would involve him in a dilemma like the present, but rather let his sign be, "No questions asked." If he imagines that his questions have involved him in a matter of "confidence," let him abstain from them for the future.

We would also have him learn from our remarks, that it is perfectly plain that criminality is involved, and if he be in earnest in seeking the honest solution of the question, we feel sure that he will coincide with what we have said. But should he still waver, and deny or hesitate to admit the force of our observations on the duty to the public owed by every individual of which that public is composed, and he still maintain his obligation to keep the thing he pleases so facetiously to designate "confidence" inviolate, we can only adduce one argument more to convince him—

> "The Public Faith, which every one
> Is bound to observe, yet kept by none;
> And if that go for nothing, why
> Should *Private Faith* have such a tie?"

If he does not strike to this, we have done.

I am, &c. LL.D. Hiberniensis.

Dublin, November 11, 1857.

PROLAPSUS UTERI.

[To the Editor of the Medical Times and Gazette.]

Sir,—The following case came under my notice while visiting my patients on the 23rd October last, and should you deem it of sufficient interest to be worthy a place in your Journal, I shall be obliged by its insertion :—

Whilst passing the house on the 23rd of October, I was requested to see a young girl, between 15 and 16 years of age, the subject of this communication. Her mother told me "that she was afraid her daughter had seriously injured herself, as she had a large swelling at the bottom of her belly, and which she (the mother) had found out by mere accident whilst her daughter was asleep, and that she was so frightened she called her husband to see it."

Upon examination, I found she was suffering from prolapsus uteri (complete). The appearance presented was somewhat curious, and for a moment I hardly knew whether it was not some natural deformity. The upper and most prominent portion of the tumour (the uterus) was of an oblong, elongated form, the lower portion (invaginated vagina) was more cylindrical and corrugated, and presented very much the appearance of the scrotum, especially as the part seemed to have undergone a change from mucous to cutaneous structure. The posterior lip of the os uteri was very prominent, the anterior nearly obliterated. There were three patches of ulceration surrounding the os uteri, and from the circumstance of the neck being considerably elongated, and the purse-like cutaneous appendage, it forcibly reminded one of the penis in a state of syphilitic disease. The history of the case is as follows :—The girl became servant to a farmer in 1856, and during her service had some very laborious work to do, carrying buckets of water a long distance, sometimes filling the copper, having to raise the buckets as high as her shoulder before she could empty them. It was at the end of May or beginning of June, 1857, that her master had two days' brewing, and after carrying the water, she complained of great pain on one side; and when she went to bed, to use her own expression, "she felt something bulge out between her legs;" but she continued to work on till she left her situation last Michaelmas, so that the tumour made its appearance at the end of May or beginning of June, and remained in the same position till reduced by me on the 23rd of October.

There was continual roughness and excoriation on the inner side of each thigh, from the contact and friction of the tumour, and the only pain and inconvenience she suffered was from soreness of the parts and the difficulty she had in moving about, and that whenever she passed water it always wetted her abdomen, and, passing over the tumour, made her smart. She had never suffered from tenesmus, constipation, or dysuria, and, as far as her health was concerned, felt very well. She menstruated four times during the prolapse. I proceeded to reduce the prolapsus, the patient being on her back with the thighs flexed, but from the dry, scurf-like texture of the lower part it was not very readily reduced; but by employing the taxis and lubrication I succeeded in little more than twenty minutes, the patient complaining of no pain during the operation but expressing herself greatly relieved afterwards. I ordered her to be kept in bed, and employed some astringent injections. She has been progressing favourably ever since, and sat up yesterday for the first time.

I am, &c.

Pailton, Nov. 6, 1857. Geo. M. Dickinson.

REPORTS OF SOCIETIES.

ROYAL MEDICAL AND CHIRURGICAL SOCIETY.

Tuesday, November 10, 1857.

Sir J. Locock, President, in the chair.

A paper by Mr. Moore was then read :—

THE ACCOUNT OF A CASE OF ARTERIO-VENOUS ANEURISM, WHICH WAS TREATED BY LIGATURE OF BOTH THE ARTERY AND THE VEIN.

A labourer, aged 60, was admitted into the Middlesex Hospital on September 30th, 1857, pale and much depressed by loss of blood. Thirty-six years previously he had been bled in the left temporal artery, and he had ever since had a pulsating swelling in the site of the lancet-puncture. In the course of years it enlarged to the size of his fist; the pulsation continued, and could be stopped by pressure with his finger in the parotid space. He had no pain in the tumour till August last, when it enlarged still more. One month ago it burst, and he at once lost two quarts of blood. Hæmorrhage recurred a fortnight ago, which greatly reduced him, and large "lumps of flesh" were removed from the aneurismal cavity. On his admission to the hospital, there was an ulcer in the left temple as large as a crown-piece; a clot of adherent blood near its anterior part; a large abscess above the ear, from which pus issued in a stream through the ulcer; and extensive œdema of the left half of the scalp. Moreover, a cluster of enormous tortuous, soft, pulsating vessels could be seen and felt above, below, beneath, and in front of the ulcer. There was no purring tremor in the veins of the scalp; but the left external jugular vein was greatly enlarged, and had a visible arterial pulsation, together with a continuous vibratile thrill. No other vessels were enlarged. The enlarged vessels being extremely thin, it was determined not to place a ligature upon them, and the temporal artery was sought for at the highest point at which it was presumed to be healthy. By means of a vertical incision over the parotid space, a pulsating vessel was reached, and a ligature passed under it. Pulsation ceased in the temporal vessels when the finger was pressed into the loop of the ligature, but continued after the knot was tied. Upon examination, the pulsation was found to continue only on the distal side of the ligature, and the tied vessel proved therefore to be the vein. The temporal artery, by communication with which the vein received its pulsation, was then found in a situation where it might have been compressed by the finger when introduced into the wound. Upon tying the artery, the pulsations in the temple and in the distal part of the vessel previously tied at once ceased. The pulsation and thrill of the external jugular vein disappeared, the wound contracted, the temple shrank, the abscess closed, and the man left the Hospital on the 19th of October, convalescent, though still weak. The author briefly reviewed the effects of the treatment by compression and by ligature, which had been adopted in cases of permanently circumscribed arterio-venous aneurisms.

1. A cure had been obtained by the complete closure of either the artery or the vein at the site of the unnatural aperture.

2. The obliteration of one end only of either vessel had never proved successful, the disease continuing or gangrene of the limb ensuing if only the cardiac end of the artery were tied, whilst the closure of the distal orifice only of the vein had but moderated the symptoms of the disease.

3. There was reason to think that the operation just related would prove permanently successful, since all direct access

and return of blood through the main vessels was cut off by the ligatures; and the orifice of communication, being beyond both ligatures, was reduced in importance to that of a passage between vessels whose circulation was only collateral.

Mr. Fergusson said the case was an unusual one in many respects, and involved a number of principles in surgery of great interest. It had been stated on high authority to be a rule in surgery not to interfere at all with such diseases; but, as in regard to most other diseases, there were exceptions to the rule, and he believed that an exception might very properly have been made in the case in point. Little or nothing had been done for the patient till the disease had reached a point when there was no choice left to the surgeon, who was obliged to do his best under the circumstances; but if, instead of waiting until the disease had all but done its worst, an operation had been performed at an earlier period, there would have been far less risk and better results. As it was, the operation was no doubt a triumph of surgery, but the case would have been greatly simplified if, months or years before, the patient had been recommended to undergo an operation of a less hazardous character. The treatment in the present case was doubtless all that could be desired. It was generally considered that putting a ligature upon the main artery leading to the disease was the best means that could be adopted, but he questioned whether it was the best treatment in all cases. In the extremities it was no doubt the best plan if the surgeon dared to attempt it. In such cases the object should be to get at the vessel where it happened to be wounded; in attempting to tie the main artery at a point near the heart success was doubtful. He had known one instance where that practice had failed entirely in the scalp. In many cases he believed it to be advisable, instead of putting a ligature upon the main artery, to deal with the disease locally. A system of compression might be adopted successfully, and he recommended the employment of long needles across the part affected, and threads twisted from needle to needle. He doubted whether the conclusions of the author were appropriate to the case in question, believing that there was but little analogy between the disease in the scalp and in the extremities. In the extremities there was but one artery to deal with, but in the scalp a single artery was rarely the cause of the mischief. Although in the cases described only one artery was wounded, many arteries became subsequently enlarged. And besides the articular, there was venous enlargement, and for the latter he had never heard of deligation being resorted to. In the extremities mortification might be dreaded from the presence of the disease, or from what it might effect in the course of time, or from surgical interference: but in the scalp mortification need not be apprehended to any considerable extent, excepting at some local point, and even then it might not be productive of much danger.

Mr. Moore said that the patient lived some miles away from the surgeon under whose care he placed himself, and no opportunity was afforded of recommending an earlier operation. The vessels seemed so large that he should hardly have ventured to treat them in the way suggested by Mr. Fergusson; and he believed that, on the whole, the treatment by a ligature on the main vessel was the quickest as well as the safest.

A paper by Mr. Sercombe was then read on

A CASE OF GUNSHOT WOUND IN THE FACE, WITH A DESCRIPTION OF THE MECHANICAL MEANS SUCCESSFULLY APPLIED FOR THE REMEDY OF THE SUBSEQUENT DEFORMITY, &c.

This was the history of the case of an officer in the British army, wounded in the attack upon the Redan. A musket ball had carried away the whole of the alveolar ridge of the upper jaw and teeth, with the exception of the tuberosity on the right side, in which the wisdom-tooth was left. The bony palate was also destroyed to an extent the size of a florin. The consequent inconveniences were very great, arising not only from the passage of the food into the nose, the descent of mucus into the mouth, and the extreme irritation from the exposure to the atmosphere of parts naturally covered and protected causing frequent bronchitic affections, all which, however, were slight in comparison with the inability to articulate the word of command, which last difficulty threatened the necessity for the patient's leaving the service. The apparatus contrived by Mr. Sercombe (which was exhibited was quite successful in remedying all these inconveniences, and the officer is now about to proceed to India on service. The apparatus was of gold, with mineral teeth, mounted upon a mineral base. The main difficulty in its construction arose from the fact of the soft parts having become contracted so very much as to reduce the oval opening to a very small size, and almost completely prevent the motion of the lower jaw.

Mr. Curling asked how the apparatus would be fixed in the event of the remaining wisdom tooth being lost, which was a very probable event, seeing that the wisdom tooth, though the last to come, was the first to disappear.

Mr. Sercombe said that the presence of the wisdom tooth offered one of the principal obstacles in the case, rendering the task of obtaining a model of the mouth one of great difficulty.

Mr. Holmes Coote said he was sure the members would do justice to the talent and perseverance displayed by Mr. Sercombe in the construction of the apparatus. With regard to the early disappearance of the wisdom tooth, that was not the case in the typical arrangement of teeth. The first tooth to go ought to be the first molar; and it was only in the European race, in consequence probably of the higher development of the intellectual functions and the less developed condition of the jaws, that the last tooth became compressed for want of room, and was the first to disappear.

Mr. Curling asked how it was that Mr. Sercombe did not extract the wisdom tooth if it offered so serious an obstacle?

Mr. Fergusson said he agreed with Mr. Holmes Coote as to the praise due to the author for his ingenuity. There were cases, however, still more serious, such as those in which the superior maxilla had to be removed, and in which the scientific mechanician was enabled to construct an apparatus to make amends for the deficiency. Mr. Cartwright, jun., who was then present, had had great experience in such matters.

Mr. Cartwright, jun., thought it would have been better to remove the wisdom tooth if it was the only one remaining. Where part of the upper jaw was removed, and only a few teeth remained, it was advisable to extract them, as, when they became loose, they might cause considerable annoyance.

Mr. Solly said, in reference to the removal of the superior maxilla, that he had operated on a lad 16 or 17 years old, and found two years afterwards that nature had filled up the deficiency, so that no mechanical apparatus was required.

Mr. Sercombe said he acted upon the principle that it was the duty of the dentist to save a good and useful tooth, even at the cost of some additional labour to himself; when the wisdom tooth was lost the apparatus could be retained firmly in its place by an additional spring.

The following case, by Mr. Wilks, communicated by Dr. Addison, was read:—

REPORT OF A CASE OF DISEASE OF THE SUPRA-RENAL CAPSULES.

The patient first came under the care of Mr. Wilks in 1854, in her 16th year, suffering from chronic rheumatism. She was of a fair complexion, fat, round figure, and a particularly happy, joyous girl. In the following year she suffered from general debility, for which quinine and iron were prescribed. In the summer of 1856 she made a tour in Wales, and then for the first time the change in her complexion became striking; but she had for some time been using simple washes for what was still only regarded as severe sunburn. The colour continued to increase in depth as winter advanced. She began to suffer from great lassitude; and after a long walk in March of the present year, she was attacked by violent sickness, which lasted for three or four days. The tongue was clean, pulse quiet, but very feeble, skin soft, and appetite bad. Quinine and iron were again prescribed with advantage. On the 5th of May the sickness returned violently, continuing incessant for several days and nights, and lasting, with very short intervals, during seven weeks, when she died exhausted on the 22nd of June, in her 19th year. Latterly the skin had darkened very considerably, and had acquired a bronze tint.

Examination twenty-four hours after death.—Body greatly emaciated; breasts atrophied, areolæ quite black; face olive brown, chin shining like bronze. About an inch of fat on the abdomen; none anywhere else throughout the body. The viscera generally were quite healthy. The kidneys were small, and rather flabby. The supra-renal capsule on the left side was the size of a large egg, and intimately connected with both spleen and kidney; it contained a large quantity of

purulent matter. That on the right side was similarly adherent, but was smaller, and the matter contained in it was less fluid, and gave in the fingers a gritty sensation, as if of calcareous substance.

The PRESIDENT invited discussion on the subject, especially as to whether the bronzed skin uniformly attended disease of the supra-renal capsules.

Dr. COPLAND said the subject was one of great importance, and it became every medical man to endeavour to connect the bronzing of the skin with disease in the supra-renal capsules. He believed that the importance of those organs had been greatly under-estimated; and that the investigation of the ablest microscopists had shown their structure to be different from what had been formerly supposed, there being a more intimate connexion between them and the spinal nerves, especially the ganglionic nerves, than was generally believed, so as to warrant the idea that the capsules were subsidiary to the functions of the ganglionic system, agents in the assimilation of the globules of blood, and also in reinforcing the nervous energies of the urinary and sexual organs. Where the capsules were organically affected there was not only deficiency of blood but great impairment of the sexual functions. The disease of these organs should receive greater attention than had been bestowed on them; and Dr. Addison deserved the thanks of the Profession for not only pointing out the coincidence to which reference had been made, but also the relation of cause and effect.

Mr. HENRY LEE mentioned the case of a gentleman who had been remarkable during his life for his want of nervous energy and the flabby condition of his muscular system. The renal capsules were found to be enlarged, both sides being converted into a brown friable mass, like a piece of wet gingerbread. The skin was of a dark colour, but not so marked that it would have been observed had not the connexion been pointed out by Dr. Addison.

The Society then adjourned.

EPIDEMIOLOGICAL SOCIETY.

MONDAY, November 2, 1857.

Dr. BABINGTON, President, in the Chair.

THE PRESIDENT in a short address congratulated the Society on the interesting and valuable papers read at the Meetings of the past Session, and trusted that there would be no falling off in this respect during the Session they were now inaugurating. He stated that the harvest gathered by the Medical officers of the various services in the Crimean field were now being given to the world, several valuable works from that source being either published or in course of publication. He alluded also to the unhappy mutiny in India and to cholera in that country, which had proved to our gallant troops the only foe before which they had ever retreated; and added that the re-appearance of cholera not only in the Baltic and Elbe, but also at our own doors, suggested the necessity of watching the movements of the scourge, and taking measures to meet it should it assume the epidemic form. Dr. Babington then called the attention of the Society to the National Association for the promotion of Social Science, which in the preceding month had been instituted at Birmingham under the presidency of the veteran Lord Brougham. He gave an outline of the plan by which the Association seeks to attain its objects; among which the question of Public Health forms a prominent place; and added that two members of Council had attended the sittings of the Public Health department at the recent meeting of the Association. Dr. Babington concluded by expressing a hope that, as the Society had, notwithstanding the untoward events of war and increased taxation and its consequences, steadily progressed, it might still go on and prosper; and that by a supply of good papers, and the judicious discussion of them, as well as by the labours of the Committees, the Society would keep up its claims on the score of usefulness to the support—intellectual and pecuniary—of the Profession, and of the public. The President then called upon

Dr. GREENHOW to read a paper on

THE STUDY OF EPIDEMIC DISEASES, ILLUSTRATED BY THE PESTILENCES OF LONDON.

He began by stating that it is but an imperfect knowledge of any epidemic disease that can be acquired by its study, however careful, in a single visitation, or even in a succession of visitations in the same place. Perhaps even the study of a single form of epidemic disease would leave many points obscure which might be rendered clear by its comparison with other diseases of the same class. In the study of an epidemic visitation it is further necessary to investigate the condition of the public health anterior to the outbreak, and to note whether this at once returns to its usual state afterwards. Many cosmical phenomena — the state of the weather, peculiarities of seasons, and other evident circumstances—will also deserve notice. Hence, likewise, it will be useful to inquire into the influence, if any, which these several circumstances have produced upon the lower forms of organized beings and particularly upon domestic animals and cultivated vegetables. Epidemic diseases have varied greatly in type and character from century to century, and this very clearly, not because they have been excluded by means of restrictive precautions, but because of some change unfavourable to their development in the crasis of the people, or in conditions amidst which they exist. To these peculiarities, therefore, the student of epidemiological science must likewise direct his attention; nor must the attention be exclusively devoted to these positive phenomena; many negative facts will also demand investigation. Thus, the singular immunity from surrounding pestilence occasionally enjoyed by the inhabitants of particular districts, by particular races, or by particular classes of persons, will deserve consideration. Dr. Greenwood continued somewhat as follows:—Let us now proceed to illustrate these suggestions by a reference to the epidemics of London. These are evidently divisible into two classes, viz.:—

1. Epidemics apparently depending upon some purely atmospheric influence, and which comprise the simple form of febrile disorder so well known under the name of influenza.

2. Epidemic Pestilences depending also in a great measure upon atmospherical influence, but requiring likewise some definite conditions of persons and places peculiar to each form for their full development. Under this head will be included the black death, sweating sickness, plague, dysentery, or alvine flux, and cholera, also a form of alvine flux. These epidemics have all been remarkable for their irregularly periodical character and their successive appearance, each having been almost exclusively predominant for a certain time. In studying the history of these pestilences it is observable that they have all possessed uncertain common characters. Each has been attended by some peculiarity of season, and the prevalence of fog, haze, or mist during the visitations has been recorded in regarded to most of them. Not the least important point in the history of London pestilences is the absence of pestilence during the 18th century, and its re-appearance in the 19th century, and this notwithstanding a general improvement in the public health. The general death-rate of London, which is now 25 in the 1000, exceeded 35 in the 1,000 a century since. It is not less interesting and remarkable that pestilence has now re-appeared in exactly the same form in which it took leave of our forefathers about the close of the 17th century. The cholera of our times, which has on three separate occasions carried off some thousands of the inhabitants of London, is identical with the *dysenteria incruenta* of Willis, and the *diarrhœa colliquitiva* of Morton, which, on many occasions, carried off in the autumns of the last quarter of the 17th century as many people from the then population of the metropolis as would be represented by the deaths of 11,000 or 12,000 persons in the present London. It will be interesting here to pause for a brief space, and contrast the mortality caused by former pestilences with that produced by cholera in our own times. The means of accurately estimating the mortality caused by the black death and sweating sickness do not exist, but there are reliable data from which the mortality of plague may be computed, so as at least to approximate to truth. The plague visitation of 1625 raised the mortality of London for that year to more than five times the average amount; and the visitation of 1636, raised it two and a-half times the death-loss of the ordinarily healthy years of that period. Supposing the cholera visitations of 1849 and 1854 to have been equally fatal to the inhabitants of London, the deaths, which were 68,755 in 1849, and 73,697 in 1854, would have

been 266,885 for the earlier, and 133,442 for the latter outbreak. The total mortality of the last Great Plague year, that which immediately preceded the Great Fire, was little short of 100,000, whereof nearly 70,000 died of the pestilence. The general death-rate of London is now 25 in the 1000. The general death-rate in that calamitous year was 253 in the 1000,—that is, fully one-fourth of the inhabitants were numbered with the dead. The plague death-rate (included in the general death-rate) was 178 in each 1000 of the living. This was, however, very unequally distributed, the mortality being fearfully high, even when compared with this, to us, dreadful mortality, in some districts, and in others comparatively low. 60,000 deaths occurred in nine weeks. In the week ending September 19, upwards of 8000 persons perished, 3000 of them in one night, which was probably the most fatal night that ever occurred in London. The cholera death-rates of our own day, alarming as they were at the time, sink into insignificance, when contrasted with these death-losses of the seventeenth century. They are even insignificant when compared with the average death-rate of analogous disease at the close of that great epidemic epoch. The average annual death-rate of cholera, diarrhœa, and dysentery for the ten years, 1846-55, including the last two visitations of cholera, and all the years in which diarrhœa was most fatal, was 257 in the 100,000 persons. For the years 1681–90, when the deaths from this class of diseases had already begun to decrease, the average annual death-rate from analogous diseases was 477 in the 100,000 persons. The apparently sudden outbreak of epidemic diseases is one of their commonest attributes, and has been often quoted as an argument in favour of their importation. This suddenness is, however, only apparent; for, with few exceptions, epidemic outbreaks have been preceded by sufficient indications of the existence of an epidemic constitution tending towards, and more or less gradually passing into the form of the approaching disease. Plague was preceded by pestilential fever, into which it again passed at its decline, and the visitation of cholera in 1832 was preceded by a distinct, though small, increase in the fatality from analogous affections in London. Forty-eight deaths from cholera morbus were recorded in the London Bill of Mortality for 1831, although the epidemic form of cholera did not show itself until the early part of 1832. Thus it would appear that the magazine was already prepared here, even if the spark which fired it came from abroad. Probably all the forms of pestilence to which I have referred have been only malignant forms of diseases constantly present in London. Plague was not absent from London for twenty-five years anterior to the great fire. It even occasioned a very considerable mortality on many occasions that are not usually spoken of as pestilential periods. So likewise in our day do deaths from cholera, indistinguishable from epidemic cholera, excepting for its less rapid course, annually occur, although, like plague, it only appears in its epidemic and pestilential character at more distant intervals. On this point, however, let me guard myself from misapprehension. I do not deny the importation of cholera any more than I deny the contagiousness of plague. The question must still be viewed as an unsettled one, requiring much careful inquiry for its elucidation. The chief conclusions deducible from the facts here put together is, that of the several forms of epidemic disease which have at different periods visited London, influenza has retained its precise character from century to century, because it is independent of the extrinsic condition of the population it attacks. Black death, sweating sickness, plague, and cholera, whether in the seventeenth or nineteenth century, have appeared in succession, and then disappeared, because they have required for their development some definite, but temporary condition either of the human subject, or of his place of abode. They have in turn appeared, and they have in succession departed from London, not because they have at the one time been imported with bales of cotton, or by means of the sick, or at the other been effectually exclusive by repressive precautions, but because at the period the organic matter out of which plague or cholera is brewed abounded, and at the other period has been wanting. The exciter may, perhaps, have sometimes come to us over sea, but it would have failed to light up the epidemic conflagration, had it not here met with materials upon which it could react.

A discussion followed, in which Mr. Grainger, Dr. Snow, Dr. Aldis, Mr. Simon, and Dr. Milroy, took part.

Dr. GREENHOW having replied, the Society adjourned.

MEDICAL NEWS.

APOTHECARIES' HALL.—Names of gentlemen who passed their examination in the Science and Practice of Medicine, and received Certificates to Practise, on November 12 :—

ELLIOT, JOHN, Kingsbridge, Devon.
GALLOWAY, JAMES, Penrith, Cumberland.
HARTLEY, JOHN HENRY, Thames Ditton, Surrey.
MARRIOTT, CHARLES HAYES, Kibworth, Leicester.
MARSHALL, JOHN.
NEAL, JAMES, Birmingham.
ORMEROD, HENRY, Portland-square, Bristol.
RENDLE, CHARLES BAINBRIDGE, Plymouth, Devon.

Also, as an Assistant, TROS. BRITTON, Doncaster.

The following are the names of the gentlemen who passed their examination in Classics and Mathematics on Tuesday and Wednesday, the 17th and 18th inst. :—

BATHO, WILLIAM, King's College.
BLAKE, JOSEPH, N., University College.
BROOK, CHARLES, Lincoln.
CLAPHAM, EDWARD, Thorney Abbey.
COBB, JOHN F., 51, Great Coram-street.
DAWSON, WILLIAM H., Exeter.
DOUGLAS, GEORGE M., North Cheam, House.
EDWARDS, SAMUEL S., Llansffraid.
EVANS, ALFRED W. A., Brixton.
FUSSELL, ERNEST, Sherborne, Dorset.
GRIGG, W. C., Queen's College, Birmingham.
HARRISON, WILLIAM W., Gayton, Lincolnshire.
LINDOP, JOHN C., Newport, Salop.
LYELL, HENRY, Horselydown, Southwark.
METCALFE, FENWICK, Peterboro'
MILES, THOMAS, Newton Abbot.
RAYNER, WILLIAM, Stockport.
RIX, SAMUEL B., Tunbridge Wells.
ROGERS, GEORGE HENRY, King's College.
RUMBOLL, W., Tunbridge Wells.
SEABROOK, WILLIAM M., Brighton.
SMITH, CLEVELAND, London.
SOUTHEY, A. J., 2, Woburn-square.
SPENCER, WILLIAM HENRY, 15, St. Thomas-st., Borough.
SPYERS, THOMAS CHARLES, King's College.
TRIMMER, FRANCIS, 171, Union-street.
TUCK, BUCKMASTER J., Cresswell-park, Blackheath.
VALLANCE, EDMUND, Sussex County Hospital.
WORTHINGTON, EDWARD, Birmingham.

DEATHS.

BODDINGTON.—In London, aged 39, Mr. W. E. Boddington, formerly of Chesterfield.

SCHWEIGGER.—That eminent man, Professor Schweigger, recently died at Halle, at the University of which place he long formerly held the Professorship of Physics. His discoveries in Electrical Crystallization gave him a world-wide celebrity, and his name has been given to the electro-magnetic multiplicator of his invention. He was born at Erlangen in 1779, and first engaged in teaching there, and then at Nuremburg. Since 1819 he has filled a Professor's chair at Halle. The *Journal für Physik und Chemie*, long edited by him, was for a long time one of the most important journals relating to natural science published in Germany, and will long continue a valuable repertory of the discoveries made in the provinces of chemistry and physics during the period of its career. The idea of establishing the annual meetings of German Naturalists and Physicians (since imitated in our own British Association for the Advancement of Science) first originated with Schweigger, and was carried out by Oken.

APPOINTMENTS.

DR. HILLIER, of Upper Gower-street, has been elected Assistant Physician to the Hospital for Sick Children, Great Ormond-street.

MR. HOLMES COOTE has been elected Assistant-Surgeon to the Orthopædic Hospital.

GROSVENOR-PLACE SCHOOL MEDICAL SOCIETY.—The first meeting of the above Society took place on Thursday evening (12th instant), W. Adams, Esq., in the chair. The President opened the proceedings with a brief and energetic address, complimenting the students on the success which has attended the formation of their Society, pointing out to them the advantages, social, scientific, and professional, which arise from such *réunions*, and giving some general instructions as to the course which should be pursued in the preparation of papers for the Society. Mr. T. A. F. Scott, M.R.C.S.L., read a paper on exeision of the knee-joint. In this paper Mr. Scott defended, from statistical evidence, the operation of reseetion, and showed from an analysis of all the cases that had been performed that the mortality from this operation was not greater than 20·95 per cent. He then contrasted this favourably with the mortality from amputation of the thigh, and eoncluded by answering the numerous objections which have been brought forward against the operation. After the paper a very interesting discussion took place, in which Drs. Richardson and Halford, Mr. Bloxam, the President, and others took part.

Dr. ALEXANDER ARMSTRONG, who was surgeon of Her Majesty's ship Investigator at the discovery of the North-West Passage, and Surgeon Charles Steel, who has recently been appointed Staff-Surgeon to the Portsmouth division of Royal Marine Light Infantry, have been awarded Sir Gilbert Blane's gold medal, conferred once in three years on the surgeon in the Royal Navy whose medieal and scientific journal during a ship's commission shall be adjudged of the highest merit.

ELECTION OF SURGEONS AT THE BELFAST HOSPITAL.—A meeting of the General Committee of the Belfast General Hospital was held on Saturday, in the library of that institution, to elect a surgeon in the room of Surgeon Lamont, who was lately elected to the offices of House Surgeon and General Superintendent. The Lord Bishop of Down and Connor and Dromore occupied the chair. The candidates for the vaeant office were Dr. Gordon and Dr. Stronge, and after a ballot the former gentleman was declared elected by a large majority. The numbers were—For Dr. Gordon, 28; for Dr. Stronge, 15. Majority, 13.

PROFESSOR NAGELI.—The eminent professor of botany at Zurich, Dr. Carl Wilhelm Nageli, has reeeived a "call" from the King of Bavaria, and has been appointed Professor of Botany in the Munich University and Conservator of the Botanical Gardens.

GENERAL HOSPITAL AT VIENNA.—By the new regulations, this vast establishment is divided into twelve sections—viz., six for the treatment of internal diseases, three for surgical affections, and three for the specialties, syphilis, skin diseases, and eye diseases. Over the whole Dr. Helm, the Medical Director, is placed; and each of the twelve sections has its First Physician, Second Physicians of the first and second class, and Aspirants. The whole of these Medical officers sleep within the walls of the establishment, as far, at least, as the accommodation permits. The First Physician and Surgeons are not allowed, except with the sanction of the Minister, to undertake any professorial occupation. This rule not being retrospective does not embrace Professors Hebra and Sigmund, who are engaged in teaching. On the 14th October there were 1,844 in-door patients under treatment.

PRESERVATION OF LEECHES.—M. de Quatrefages has recently communicated to the Academy of Sciences a series of important experiments eoncerning the preservation of leeches. From these experiments it appears that the Algerian is quite equal in quality to the Bordeaux leech, provided proper caution is used in exporting it. He recommends an apparatus for preserving leeches, invented by M. Nayson, whom the War Department had sent over last year to Algeria to explore the marshes. This apparatus consists in a kind of cone with its base downwards, pierced with small holes; it is filled with earth taken from the swamps; the pot is placed in an earthen dish, containing water to the height of about three inches; this suffices to keep the earth sufficiently moist. The mouth of this vessel is covered with gauze. In this apparatus leeches have been kept without nourishment for a whole year without any mortality.

CONVICTION FOR THE SALE OF CHLOROFORM IN PARIS.—M. Plisson, Pharmaceutical Chemist, was charged before the Correctional police with having sold thirty drachms of chloroform, a poisonous substanee, without assuring himself of the name and residenee of the purchaser, and without receiving a Physician's prescription for the same. The person who bought it in part inhaled and in part swallowed it, and died while being taken to an Hospital. M. Plisson was sentenced to six days' imprisonment, and a fine of 1000 francs.

DR. SCOUTETTEN.—Dr. Seoutetten, ehief Medical offieer of the Military Hospital at Metz, has just received from the Emperor of Russia the cross of the second elass of the Order of St. Stanislaus, as a special testimony of the regard of Alexander II. for the attention the Doctor paid to the Russian prisoners during his stay at Constantinople, as the head of the French Hospitals.

MM. ANDRAL AND BÉRARD.—M. Andral, Professor of Pathology and General Therapeutics, and M. Bérard, Professor of Physiology to the Faculty of Medicine of Paris, have been authorized, on account of their bad health, to decline lecturing during the first *semestre* of 1857-8. M. Laséque is to act as M. Andral's substitute, and M. Beelard as M. Bérard's.

A CONTEMPORARY PORTRAIT OF SIR EVERARD HOME.—"Sir Everard Home took the chair and filled it well, for he is a fat bulky fellow; but as to symmetry of form, or liveliness of expression in his looks, or grace or dignity of action, or the willings and seducings of eloquence, poor man, Sir Everard has as little of any of them as the lowest plebeian! He rolled into the chair of surgery, put on his hat of offiee like a night-cap. Having short sight, and lost some teeth, he made a sad bother of what he was reading, and there was a good-tempered, half-suppressed laugh during the whole of the performance, of which Sir Everard sat down as perfeetly unconseious as the marble statue behind him!"

NEW MILITARY HOSPITAL AT VINCENNES. — The Ministry of War has just constructed a magnificent hospital at Vincennes, embodying all the ameliorations which modern art and experience have realized. It is placed in the most advantageous part of the forest, at about four miles distanee from Paris. The portion of the land on which it stands, being the gift of the Emperor, has been disforested. The works, commenced in April, 1856, are nearly completed, so that patients may be received whenever it is deemed convenient. The hospital consists of three principal buildings. One of these is placed parallel with and at a distance of about 150 metres from the high-road, while the two others join it at right angles, thus forming an interior court 120 metres by 90, containing a garden and a basin of water. The eentre building, of a richer style of architecture than the others, gives accommodation to the officials of the establishment. The two lateral buildings are each terminated by a pavilion, one of these being destined for sick officers, and approached by a separate staircase; and the other for the sisters, who are now employed in the military hospitals in the same way as in the civil. A magnificent arcade with glass sides serves as well for a promenade as for a means of communication between different portions of the edifice. This is the first military hospital in the construction of which a complete system of ventilation and warming has been carried out, the present plan having been chosen after mature consideration of the various systems proposed. On account of its greater economy heating by steam and hot water has been preferred. The system of ventilation is calculated to supply 30 millimetres of pure air per bed and per hour, with the power of doubling this quantity in case of epidemics or other cause. The establishment occupies about 8 hectares of ground, the buildings themselves standing on 4,350 square metres. It has been erected from the designs of M. Livet, Lieut.-Col. of Engineers, and is intended for 600 patients; and its total cost will be about 2,400,000 francs—a far less sum than civil establishments of similar importance usually come to.

OUR HOSPITAL AT CHUSAN.—The following is an extract from an interesting letter of the *Times* correspondent in China:—"The Rosina lay just abreast of a long low building of European, or rather of Anglo-Indian build—eleven windows and a verandah. Part of it is now used as a Custom-house, and the rest is dirt and desolation. This was the

British Hospital. The man who chose that site is guilty of many of the deaths recorded in that graveyard, and also of many of those upon the Cameronian Hill. There are hills and valleys close around where, at small labour, you might make a little Eden. If you must be near the dirty town and the Chinese samshoo—which, of all Chinese inventions, is the most deadly to the English soldier—there is the Josshouse Hill. The British Hospital is placed upon a level with the swamp, in full reek of the paddy-fields, within the circuit of the stench of that filthy suburb, and in a spot where samshoo can be conveniently handed in through every window, yet we wonder in England that Chusan was found unhealthy."

English Literature in Sweden.—Several very interesting letters have lately appeared in the *Morning Post*, describing a tour in Sweden and Norway by an F.R.S. The following is an extract from one of these letters:—"At the Carolvinsk Institute, the Medical School at Stockholm, besides French, German, and indigenous periodical and other publications, besides many English standard works, there were weekly, monthly, and quarterly journals on the library table, issued at London, Edinburgh, and Dublin. Again, at the chief Medical Society, somewhat similar to the Imperial Academy of Medicine at Paris, in addition to many continental journals on professional subjects, the library also regularly received several published in Great Britain, and very different from what the writer found to prevail in France. For instance, at the celebrated Academy just named, he ascertained, during a recent visit to that learned institution, not a single British Medical periodical could be found in its library, excepting the London weekly return of births and deaths, sent there gratuitously by the English Registrar-General. Such authentic statements speak unmistakeably, and show a marked difference betwixt the two countries."

Monument to the late Assistant-Surgeon Thomson.—The monument to that heroic man of science, the late Assistant-Surgeon Thomson, of the 44th Regiment, is now complete. It is a granite obelisk, sixty-five feet high, comprising a shaft finely polished, and a base, on which are inscribed the deeds of him it records, and three steps. It stands on an elevated hill at the western extremity of Forres, a place made best known by *Macbeth*. This well-deserved memorial was originated by the late Director-General, Sir James M'Grigor. It will not soon be forgotten how Surgeon James Thomson, after the battle of the Alma, when the British were leaving the field, voluntarily remained behind with 700 desperately wounded Russians, 400 of whom he succeeded in restoring. He contrived to escape the dangers which menaced him throughout his stay, but died shortly after from the effects of hardships and privations. The muster-roll written by Fame in the Crimea has no nobler name in it than James Thomson. "His life was useful, and his death was glorious."—*The Builder*.

A New Scavenger.—Dr. Livingstone, describing the African Scavenger Beetle, says:—"It is one of the most useful of all insects, as it effectually answers the object indicated by the name. Where they abound, as at Kuruman, the valleys are sweet and clean, for no sooner are animal excretions dropped than, attracted by the scent, the scavengers are heard coming booming up the wind. We can confidently recommend this insect to the dirty Italian towns, and our own Sanitary Commissioners."

The Bakalahari.—The tribe Bakalahari are a timid race, and in bodily development often resemble the aborigines of Australia. They have thin legs and arms, large protruding abdomens, caused by the coarse undigestible food they eat. Their children's eyes lack lustre. I never saw them at play.—*Dr. Livingstone's Travels*.

Operation of Tsetse Poison.—"The Tsetse, or *Glossina morsitans*, is not larger than the common house-fly, and is nearly of the same brown colour as the common honey-bee; the after part of the body has three or four yellow bars across it. Its peculiar buzz, when once heard, can never be forgotten. The bite of this poisonous insect is certain death to the ox, the horse, and the dog. A most remarkable feature in the bite of the tsetse is its perfect harmlessness in man and wild animals, and even calves, so long as they continue to suck the cow. A slight itching irritation follows, but not more than in the bite of a mosquito. In the ox this same bite produces no more immediate effects than in man. It does not startle him as the gad-fly does; but a few days afterwards the following symptoms supervene: The eye and nose begin to run, the coat stares as if the animal were cold, a swelling appears under the jaw and sometimes at the navel; and, though the animal continues to graze, emaciation commences, accompanied with a peculiar flaccidity of the muscles, and this proceeds unchecked until, perhaps months afterwards, purging comes on, and the animal, no longer able to graze, perishes in a state of extreme exhaustion. Those which are in good condition often perish soon after the bite is inflicted, with staggering and blindness, as if the brain were affected by it. Sudden changes of temperature, produced by falls of rain, seem to hasten the progress of the complaint, but in general the emaciation goes on uninterruptedly for months, and, do what we will, the poor animals perish miserably. When opened, the cellular tissue on the surface of the body, beneath the skin, is seen to be injected with air, as if a quantity of soap bubbles were scattered over it, or a dishonest awkward butcher had been trying to make it look fat. The fat is of a greenish yellow colour, and of an oily consistence. All the muscles are flabby, and the heart so soft that the fingers may be made to meet through it. The lungs and liver partake of the disease. The stomach and bowels are pale and empty, and the gall-bladder is distended with bile, These symptoms seem to indicate what is probably the case—a poison in the blood, the germ of which enters when the proboscis is inserted to draw blood. The poison germ, contained in a bulb at the root of the proboscis, seems capable, although very minute in quantity, of reproducing itself, for the blood after death by tsetse is very small in quantity, and scarcely stains the hands in dissection."—*Livingstone's Missionary Travels*.

Dreadful Mortality on Board H.M.S. Brilliant.—Intelligence has been received by the authorities of the Dockyard at Chatham, that Her Majesty's ship Brilliant, arrived from Portsmouth, had lost during the short passage fourteen of the crew from fever. The ship has been on the West India station about eighteen months. She was placed in commission at Sheerness on the 30th May, 1856, and since she left the West Indies she has lost 130 men. She is ordered for Chatham to be paid off, but owing to the milignant fever on board, and the recent deaths which have taken place, it is most likely the Admiralty will order her to be placed in quarantine at Stangate Creek for some time, one of the most unhealthy spots in England.

A Lion's Bite.—Dr. Livingstone, speaking of the Lion, says, "A wound from this animal's tooth resembles a gun-shot wound; it is generally followed by a great deal of sloughing and discharge, and pains are felt in the part periodically ever afterwards. I had on a tartan jacket on the occasion, and I believe that it wiped off all the virus from the teeth that pierced the flesh, for my companions in this affray have both suffered from the peculiar pains, while I have escaped with only the inconvenience of a false joint in my limb. The man whose shoulder was wounded showed me his wound actually burst forth afresh on the same month of the following year."

VITAL STATISTICS OF LONDON.

Week ending Saturday, November 14, 1857.

BIRTHS.

Births of Boys, 907; Girls, 830; Total, 1737.
Average of 10 corresponding weeks, 1847-56, 1445·1.

DEATHS.

	Males.	Females.	Total.
Deaths during the week	590	571	1161
Average of the ten years 1847-56	..	..	1068
Average corrected to increased population	...	..	1175
Corrected average for corresponding week in ten years 1847-56	541·3	526·9	1068·2
Deaths of people above 90	..	..	5
Deaths in 13 General Hospitals	18	21	39

DEATHS REGISTERED DURING THE WEEK.

Causes of Death.	In the Week ending Saturday, Nov. 14, 1857. Deaths of Persons. AT ALL AGES.	Under 20 Years of Age.	At 20 and under 40 Years of Age.	At 40 and under 60 Years of Age.	At 60 and under 80 Years of Age.	At 80 Years of Age and Upwards.	Averages of Temperature and Deaths in 10 Weeks.
Mean temperature	Mean temp. 45·1						44·2
All Causes	1161	580	160	157	207	50	1068·2
Specified Causes	1152	579	160	156	207	50	1059·4
Diseases:—							
1. Zymotic Class	235	183	22	10	15	5	271·1
2. Dropsy, Cancer, and others of uncertain seat	51	7	4	16	20	4	46·5
3. Tubercular Class	181	57	75	42	6	1	175·0
4 Of Brain, Nerves, etc. ..	127	64	9	18	34	2	111·9
5. Of Heart, etc.	45	9	5	14	14	3	39·1
6. Of Respiratory Organs ..	291	153	27	36	63	12	185·8
7. Of Digestive Organs ..	49	25	6	7	11	..	60·7
8. Of Kidneys, etc.	17	2	3	6	5	1	12·2
9. Of Uterus; viz. — Puerperal Disease, etc. ..	5	..	4	1	..	..	9·0
10. Of Joints, Bones; viz.— Rheumatism, etc. ..	2	1	..	1	..	..	8 3
11. Of Skin, etc.	7	4	..	1	2	..	3·1
12. Malformations	4	4	..	..	..	..	4·4
13. Debility from Premature Birth, etc.	29	29	..	..	..	..	24·9
14. Atrophy	41	26	1	2	11	1	26·4
15. Age	44	..	..	..	23	21	39·4
16. Sudden	5	3	..	1	1	..	10·8
17. Violence, Privation, etc...	19	12	4	1	2	..	30·8
Causes not specified.. ..	9	1	..	1	..	..	8·8

DEATHS IN SUB-DISTRICTS FROM EPIDEMICS.

	Population. 1851.	Measles.	Scarlatina	Hooping-Cough.	Diarrhœa.	Cholera.	Typhus.
West	376,427	2	22	6	2	..	7
North....	490,396	5	11	10	3	..	9
Central ..	393,256	7	5	12	5	..	6
East	485,522	5	9	10	3	..	17
South	616,635	1	9	7	6	..	15
Total..	2,362,236	20	56	45	19	..	54

METEOROLOGY.

From Observations at the Greenwich Observatory.

Mean height of barometer	30·341 in.
Mean temperature	45·1
Highest point of thermometer	54·0
Lowest point of thermometer	30 0
Mean dew-point temperature	44·2
General direction of wind	N.
Whole amount of rain in the week	0·00
Amount of horizontal movement of air in the week ...	195 miles.

TO CORRESPONDENTS.

Dr. Beatson's paper on Sun-Stroke shall appear next week.

A.B.—It depends upon the intimacy of the two Surgeons, but the plan of dividing the fee is frequently adopted.

Mr. Wildbore's letter shall appear next week.

Mr. Hardwick.—Dr. Jenner's fifth Lecture will be published in our next number.

Omega.—Perhaps some Correspondent will say where a bust of Dr. Jenner, the discoverer of vaccination, can be obtained.

Mr. Saville's case shall appear.

Mr. Williams.—We have never heard anything rumoured against the respectability of the Insurance Office named by our correspondent.

The late Mr. Stafford.

We are unwilling to allude further to this case at present than to say, that the friends of Mr. Stafford have threatened an action for mal-praxis against a most respectable Physician.

Pulmonary Entozoa.

To the Editor of the Medical Times and Gazette.

Sir,—In the report of the proceedings of the Pathological Society, published in your last number, there is a description of an Entozoon found in the lungs of sheep, exhibited by Dr. Ranke, in which that gentleman states that "he was not aware that any description of this development of the Strongylus existed." If he will refer to the number for August, 1849, of the "Annals and Magazine of Natural History," he will there find a description and drawings of the Entozoon in question; of the morbid masses (occupying chiefly the anterior margin of the lungs) in which it was embedded; and of its progressive development within the ovum,—communicated to that periodical by Dr. Sandie, of Liverpool, and myself.

I could not at that time find any account of that or any other entozoon infesting the substance of the pulmonary tissue; neither have I since seen or heard of such until that given by Dr. Ranke.

I am, &c. George Padley.

Swansea, Nov. 16, 1857.

Prize Medal—Cork.

To the Editor of the Medical Times and Gazette.

Sir,—Permit me, through your valuable journal, to thank the President of the Cork Medical Association for inaugurating competition among the Medical students of this city. He has, through the Association, offered a silver medal for the best Report of four Medical and four Surgical cases treated in the hospitals of this city, to be competed for by students of a certain standing, and of certain hospital experience. From the interest already created among those privileged to enter the lists, I have no doubt that some creditable reports will be sent in to the Honorary Secretary.

I am, &c. A Student of Two Years.

Cork, November 16, 1857.

Errata.—Page 516, col. 1, for Dr. *James* Ogston, read Dr. *Francis*. Page 507, col. 1, for *house*maids read *nurse*maids.

Dr. Sylvester's letter arrived too late for insertion this week.

Dr. Pope.—Your report arrived duly.

COMMUNICATIONS have been received from—

Dr. Walshe; Dr. Jenner; Dr. Markham; Mr. Price; Dr. Camps; Dr. Brown-Sequard; Dr. Leared; Mr. Toynbee; Mr. Hardwick; Mr. Wharton Jones; Dr. Lyons; Dr. Beatson; Dr. Hinds, Birmingham; Dr. E. Smith; Dr. Horace Green, New York; Mr. Gamgee; Dr. Hillier; Dr. Althaus; Mr. Griffin; Mr. Padley; Dr. M'Cormac; Mr. Pope; Mr. Rivers; Mr. Saville; Mr. Mushet; Mr. Sansom; Mr. Walters; Mr. Middleton; Mr. Alford; Mr. Wildbore; Mr. Everett; Messrs. Milner and Son; Mr. Wilkinson; Mr. Wakefield; Mr. Stapelton; Mr. Aldridge; Mr. Mathews; Mr. E. Groux; Mr. M'Dermott; Messrs. Rowney and Co; Mr. W. N. Nash; Mr. J. Murphy; Dr. Paul; Mr. F. Goold; Mr. G. Hother; Mr. E. Phillips; Dr. H. Silvester; Mr. W. Bruorton; Mr. G. F. Gossling; Mr. C. Spencer; Mr. J. A. Bond; Mr. R. Keavin; Mr. H. Bradley; Dr. D. Taylor; Mr. R. J. Tunaley; Dr. Harley; Δ; Mr. Williams.

APPOINTMENTS FOR THE WEEK.

21. *Saturday (this day).*

Medical Society of London, 8 p.m.: Dr. Hare, "On the Diagnosis of Tumours, and Enlargements of the Kidneys."

Operations at St. Bartholomew's, 1½ p.m.; St. Thomas's, 1 p.m. King's 2 p.m.; Charing Cross, 1 p.m.

23. *Monday.*

Operations at the Royal Free Hospital, 1 p.m.; Metropolitan Free Hospital, 2 p.m.; Orthopædic Hospital, 3 p.m.

4. *Tuesday.*

Royal Medical and Chirurgical Society, 8½ p.m.

Operations at Guy's, 1 p.m.; Westminster, 2 p.m.

25. *Wednesday.*

Operations at University College Hospital, 2 p.m.; St. Mary's, 1 p.m. Orthopædic Hospital, 3 p.m.

26. *Thursday.*

King's College Medical Society, London, 8 p.m.: Mr. Swain, "On Topical Applications in Surgical Cases."

Operations at St. George's, 1 p.m.; Middlesex, 12½ p.m.; Central London Ophthalmic, 1 p.m.; London, 1½ p.m.

27. *Friday.*

Operations at the Moorfields Ophthalmic, 10 a.m.; Westminster Ophthalmic, 1½ p.m.; Great Northern, 2½ p.m.

ORIGINAL LECTURES.

CLINICAL LECTURES ON DISEASES OF THE SKIN.

ILLUSTRATED BY COLOURED ENGRAVINGS.(a)

By WM. JENNER, M.D.

Physician to University College Hospital, the Hospital for Sick Children, etc.

LECTURE V.

At my last Lecture I showed you several cases of the two most common diseases of the skin, viz. Eczema and Herpes. And I told you that in Herpes the vesicles are seated on red patches, circumscribed, tolerably well defined, and of no great size; the vesicles being usually larger than those of Eczema. To-day I have some cases to show you of a species of Herpes in which the vesicles are so small as to require a sharp eye, or even a lens for their detection. As the vesicles have often withered or burst before the case comes under our observation, we may only be able to infer that there have been vesicles on the patch from their remains, viz. minute particles of dried serosity, and a few very small ill-formed scales. You see that in all the cases in the room the red patches on which the vesicles or their remains are seated have a ring shape.

The name given to that disease of the skin which is characterised by vesicles seated on a slightly elevated red ring is

Herpes Circinnatus.—The breadth of the red ring in Herpes circinnatus varies from a line to a third of an inch; the diameter of the ring from a quarter to two inches; the size of the vesicles from the smallest perceptible by the eye to that figured in this plate of Willans, *i.e.* almost as large as the half of a small split pea.

When the ring is pretty broad and the vesicles of large size these latter undergo the changes I described the vesicles of Herpes zoster to experience, that is to say, at first the fluid in the vesicles is transparent, then turbid, and then the walls of the vesicles and their contents dry up into brownish scabs. A second crop of vesicles may follow, but the disease usually runs its course in a week or ten days. Sometimes several patches of the same kind appear in succession on various parts, and thus the disease may be prolonged for some little time.

As to the treatment of this form of Herpes circinnatus, a gentle aperient, rest, and a light diet only are required.

That variety of Herpes circinnatus in which the vesicles are very small is by far the most common and the most important. It is the ringworm of the face, trunk, and extremities. From the frequency with which minute scales are found on the red ring, it may be called the furfuraceous variety of Herpes circinnatus, and to this variety all that I have to say more of Herpes circinnatus applies.

Herpes circinnatus commences as a red spot, and the annular shape is the result of the extension of the inflammation at the margin of the spot while the centre regains its healthy aspect. It is one of the centrifugal affections of the skin. Occasionally a second or third, and even a fourth ring is seen within the primary circle. Every now and then we meet with cases in which the centre of the ring, instead of regaining its healthy structure as the margin extends, is the seat of repeated eruptions of very minute vesicles, and so has a rough rather scaly appearance. This latter form is especially common in strumous children, whose skin is naturally rough. It is peculiarly chronic in its course.

The furfuraceous variety of Herpes circinnatus is a purely local affection; in this it differs from most of the other species of Herpes. In Herpes zoster, phlyctænodes, and labialis, the eruption is preceded by and is probably altogether secondary to a general febrile state. The local affection in these diseases bears the same sort of relation to the general state that the rash of measles bears to the general state that precedes its eruption. Herpes circinnatus is not secondary to or even accompanied by any constitutional derangement. It differs in another particular from most of the varieties previously described. They are acute diseases; it may be a chronic affection. Each crop of vesicles runs, it is true, an acute course, but repeated crops may give to the disease a chronic character. With what can you confound Herpes circinnatus? The furfuraceous variety may, by the inexperienced student, be confounded with Roseola annulata, Erythema circinnatum, Psoriasis vulgaris, Lichen circumscriptus, and Tinea tonsurans. Of the last I shall speak in a few minutes. In Psoriasis the elevation of the red ring is greater than in Herpes circinnatus, and the scales form the prominent feature of the local disease, instead of requiring to be looked for as in Herpes circinnatus. There is no elevation of the skin, no vesicles, and no scales in Roseola annulata. The abrupt outer margin, the breadth of the ring, the yellowish tint of the centre, and the absence of vesicles and scales distinguish Erythema circinnatum. Lichen is a papular disease.

Topical applications only are required for the cure of the furfuraceous variety of Herpes circinnatus. Local astringents and stimulants are the remedies. The vulgar apply ink, and cure many cases by it. A concentrated solution of sulphate of iron answers well in some cases, so also does a saturated solution of gallic acid. A single application of strong acetic acid, or of a strong solution of nitrate of silver (a drachm to the ounce of distilled water), or of blister fluid, will occasionally suffice to remove a patch of Herpes circinnatus which has resisted less powerful agents. This furfuraceous variety of Herpes circinnatus is contagious. It is almost limited to the young, and is far more common in childhood than in early adult age. In and by itself Herpes circinnatus is a trifling affection, but considered in reference to the relation it bears to the disease I am about to show and describe to you, it is a very important disease. Several children in the room are suffering from the disease to which I have just adverted. The disease is called Tinea tonsurans.

TINEA TONSURANS

is a disease of the hairy scalp, seen only in children, and by far the most frequently between the ages of two and twelve years. It is a parasitic disease. I will first describe the disease, and then explain to you the close relation which exists between it and the furfuraceous variety of Herpes circinnatus.

On this child's head are several patches, all the hairs on which appear to have been very evenly cut off at about an eighth of an inch from the surface of the scalp. These short hairs are much thicker and more opaque than are the hairs on the other parts of the head. Here and there, too, they are twisted or bent at an angle. The patches covered by these short hairs are circular, or more or less circular, and vary in size from a sixpence to a crown-piece. Rub the surface of this patch, and you will find the scalp there covered with small, opaque, white scales, and imbedded in these a good many very opaque, thick, twisted, short hairs. Where the scales are less numerous or absent, as they are from some patches, you may see that the orifice of each hair-follicle is surrounded by an opaque white fringe, formed of little scales; and also that the hair-follicles themselves are somewhat too prominent. Observe that the circular patches are more elevated a little redder, and distinctly hotter than are the adjacent parts. Examine the periphery of the patches, and you will see that some have here and there at their margin very minute vesicles, that others have little particles, such as result from the desiccation of vesicles. Under the microscopes on the table are some of the short thick hairs, and some of the scales. The scales are formed chiefly of epithelium, but imbedded among the epithelial scales you see the sporules and mycelium of a minute vegetable growth. This fungus is the Tricophyton tonsurans. The short thick hairs are thickly studded with the same plant. The sporules, as you see, have formed in such quantity in the substance of the hair as to split it up in all directions, to increase its diameter, to render it opaque and brittle. It is in consequence of the hairs being brittle that they break off so near to the scalp, and give to the hair on the patch its clipped appearance. The sporules and mycelium of the Tricophyton are found not only in the hair and among the epithelial scales on the patch, but also in the hair-follicle itself. This plant is always present in Tinea tonsurans. Nay more, if there were no such plant as Tricophyton tonsurans, there would be no such disease as Tinea tonsurans. A little while since I told you that there is a close relation between Tinea tonsurans and the furfuraceous variety of Herpes circinnatus. The closeness

(a) Dr. Jenner has promised to supply us with the Drawings of the parasite present in Tinea tonsurans, Tinea favosa and Chloasma in time for his next Lecture.—Ed.

of this relation you will comprehend when I tell you that we not infrequently see a patch of Herpes circinnatus on the forehead or back of the neck extend in size till part of its ring occupies the hairy scalp. And then, after a short time, we find that part of the ring, and all the hair inclosed by it, presenting the characters of Tinea tonsurans, and the hairs and the detached epithelium of the part the seat of a crop of Tricophyton tonsurans. Again, occasionally in the scales which can be scraped from the surface of the red ring of Herpes circinnatus of the trunk are to be found some of the mycelium and a few of the sporules of the little fungus.

Understand then,

1st.—That it is only now and then that the Tricophyton tonsurans is found in the scales of the furfuraceous variety of Herpes circinnatus seated on the trunk.

2nd.—That this variety of Herpes is sometimes seen on the scalp, presenting characters identical with those it exhibits when seated on the trunk.

3rd.—That a disease of the scalp which at its commencement differs in no particular from Herpes circinnatus, may in its progress assume all the characters proper to Tinea tonsurans.

4th.—That at the margin of a patch of Tinea tonsurans we can occasionally detect vesicles or the remains of vesicles.

5th.—That patches of Tinea tonsurans are constantly seen, on which from first to last no trace of vesicles can be detected, and the margins of which in no way differ from their centres.

6th.—That while patches on the scalp which offer only the characters of Herpes circinnatus are easily cured by simple applications, the patches which are distinguished by the signs proper to Tinea tonsurans are altogether unaffected by the same means.

From these facts the following conclusions seem to me inevitable:—

1st.—That Herpes circinnatus and Tinea tonsurans are distinct diseases.

2nd.—That Tinea tonsurans owes its peculiar characters to the presence of a parasite vegetable growth.

3rd.—That the secretions of the part of the skin affected with Herpes circinnatus form a favourable nidus for the growth of the parasite.

In Tinea tonsurans there is first some disorder in the secretions of the hair-follicles,—a disorder, it may be, attended with no changes perceptible to the eye. If sporules of the Tricophyton tonsurans fall on the soil so prepared, they take root; the plant grows downwards between the hair and its root-sheath—outwards, upon and among the epithelium of the scalp upward into the hair, penetrating it, and passing into its shaft. To the existence of the parasite all the visible phenomena are due. Its presence in the substance of the hair causes its increased thickness, opacity, loss of elasticity, and brittleness. Its presence in and among the epithelium leads to the desquamation of the latter, and, as a consequence, to the abundance of the scales; its presence in the hair-follicles to the swelling of the follicles, and to the little fringe around their orifice, and also to determination of blood to the part. The elevation of the part and its increased temperature are consequent on the flow of blood to it.

Tinea tonsurans is undoubtedly contagious. The great object to be attained in the treatment of Tinea tonsurans, whether the disease be primary or engrafted on Herpes circinnatus, is the destruction of the plant; for so long as the fungus is present, so long will there be increased flow of blood to the part, secretion of a substance favourable to the growth of the plant, and, as a necessary consequence, persistence of the conditions of hair and scalp resulting from the presence of the plant.

How can we destroy or remove the plant? We are acquainted with various agents destructive to vegetable life. The application of any one of these to the diseased patch would no doubt quickly effect our object, were it not for the difficulty of making the parasiticide penetrate into the substance of the hair as low as its root, and pass down to the base of the hair-follicle. I will tell you what I am applying to the diseased patches on the scalps of these children.

To one patch an ointment composed thus: bichloride of mercury four grains, lard two drachms; to another, acetate of copper half a drachm, lard four drachms; to another, ammonio-chloride of mercury twenty grains, sulphur ointment four drachms; to another, strong blistering fluid; to another creosote twenty drops, lard two drachms; over a sixth I have passed rapidly a glass rod dipped in strong sulphuric acid, washing the part directly after with cold water; and a seventh I have sponged repeatedly with a saturated solution of sulphurous acid. Although any and all of these means will sometimes effect a cure, I am disposed to prefer as most uniformly successful the sulphur and white precipitate ointment. Dr. Gull, I am told, has found the strong sulphuric acid rapidly cure the disease.

Whatever treatment you adopt, cleanliness is essential. The patches should be well washed from time to time, so as to remove the scales, and with them innumerable sporules, and much mycelium,—as a detergent you will find a solution of borax useful. The parasiticide ointment should be well rubbed into the part at least twice a day.

It has been proposed to pull out the hairs from the patch; and no doubt the success of the epilation would be marked if it were possible to perform it. But epilation is impracticable. Try to pull out the hairs with these forceps well suited for the purpose of epilation, and you will find that the hair breaks off just above the point where it emerges from its follicle. In rare instances only can you extract the root of the hair, and in rarer instances still can you get out the root sheath with the hair. Blistering the part assists in the removal of the hairs. As the secretion of the hair-follicles in strumous children seems particularly favourable to the growth of the Tricophylon tonsurans, you will often find it useful to give cod-liver oil, and that while applying topical remedies.

It is satisfactory to know that although Tinea tonsurans may be very obstinate, it always disappears after a time, and farther, that it never causes even partial baldness.

I ought to tell you that Cazenave, and Simon of Berlin call Tinea tonsurans, Herpes tondens; Wilson, Trichonosis furfuracea; and Willan and Bateman Porrigo scutulata; and also that Wilson and some others curiously enough have failed to detect the plant. The hairs under the microscope were removed from a patch on this child's head. It is placed in a drop of water. The magnifying power is about 280 diameters. To see the plant clearly in the epithelium a little liquor potassæ should be used in the place of water.

ORIGINAL COMMUNICATIONS.

SOME REMARKS ON

SCARLATINA FAUCIUM, AND PSEUDO-MEMBRANOUS PHARYNGITIS.

By WILLIAM MOORE, A.B. M.B. T.C.D. M.R.I.A.

Licentiate of the King and Queen's College of Physicians, and Physician to the Institution for Diseases of Children, Dublin.

SCARLATINA FAUCIUM.

"Postea curatio ipsa et contactus ægrorum vulgabat morbos."—Livy, 25 and 26.

The prevalence of diphtherite giving, for the present, an increased interest to acute affections of the throat, I have been induced to publish the following remarks.

Few practitioners but have met with cases in which it was impossible to define with perfect certainty the presence of this affection. The diagnosis is more embarrassing when these cases of sore throat without rash occur during the prevalence of scarlet fever, and in persons in whom that disease has already been unequivocally developed. Called in to such cases, we naturally incline to lay the mischief at the door of cynanche tonsillaris, yet though there is fever present it is not of that inflammatory character so frequently met with in quinsy. On examining the throat we find a peculiar deep redness of the tonsils, uvula, and arches of the palate, and in many cases, though there is no very decided enlargement of the tonsils, at least nothing to prevent the patient swallowing, yet there is almost total loss of the power of deglutition, the smallest quantity of fluid being returned through the nares. We very frequently find a patch of dark yellowish mucus deposited on the tonsil, as if resolution had taken place; but such is not its nature, it is of the same family as the grayish or yellowish white membranous exudation, covering the back of the pharynx; remove it, and we will find no loss of continuity unless it is of some standing, when it gives rise to ulceration, but the membrane presenting a redder appearance than natural; in the course of a few hours a similar deposition

may take place. The appearance of the uvula in such cases will not guide us much in discriminating between these affections; it is usually more enlarged, deeply congested, and of a darker colour than in the ordinary cynanche. The tongue is coated with a dirty white creamy fur, and occasionally the papillæ may be prominent. In such cases with scarlatina epidemic we look for the presence of rash; none is to be found, and although the patient has assured us that he or she has had scarlatina, still there is something about the appearance of the throat, fauces, and the character of the fever, (which I incline to call typhoid,) satisfying us that it is not a case of cynanche tonsillaris we are called upon to treat. I cannot exemplify my views better than by detailing the following case:—

Not long since I was consulted by a lady, aged about fifty years, of dark complexion and lax atonic fibre, the mother of a large family. She complained of slight sore throat and stiffness in the cervical region, with pain in deglutition; her skin was perceptibly feverish, and pulse quicker than natural. I ordered her a mild aperient draught, to inhale the steam of hot water and vinegar, and to take a warm bath at bed time. The following day I found her very restless and feverish, evidenced not so much by heat of skin, as by a quick pulse (100), and general constitutional disturbances, her appearance being most haggard and dejected. She had passed a bad night, her throat was more inflamed; I ordered her to take a castor oil draught, to apply the liniment camphor. comp. around and under the jaws, and to continue the inhalation of the vinegar and hot water.

On the fourth day from the accession of the first painful symptoms, I find the following remarks. The lady had passed a wretched night, was delirious at times, pulse 110. The throat presented the following appearance:—There was deep redness of the tonsils, palate, uvula, and arches of the palate, for about two inches anteriorly. The left side of the throat was most engaged. There was slight enlargement of the left tonsil, and a patch of dark-coloured mucus rested on it, while a similar ropy exudation covered the back of the pharynx. The uvula was deeply congested, and twice its natural size, constricted in the centre, and resting on the tongue; it caused constant distress to the patient. There was the greatest pain of deglutition; fluids, the only form of nutriment attempted, could with difficulty be swallowed in the most minute quantity, and occasionally were rejected through the nose; this resulted not from any abnormal enlargement of the tonsils, but from the combined effects of the thick tenacious secretion, and the total inability on the part of the patient to raise the uvula, which hung forward on the base of the tongue. There was considerable enlargement of the parotid and submaxillary glands, particularly on the left side. I examined the skin carefully for rash, but could not find a trace of it. Mr. Adams saw this case with me, and the following treatment was adopted:—A gargle of the decoction of figs, ʒviii., nitrate of potash ʒi. The patient to re-apply the liniment camphoræ comp., and the throat to be touched with a solution of nitrate of silver (gr. xv. to ʒi.,); to repeat the red mixture till the bowels were well freed.

Fifth day.—The throat was much in the same state; patient slept little, raved, pulse very quick. Continue the treatment as before.

Sixth day.—Less inflammation about the throat; pulse 90; feverish symptoms subsiding; she passed a better night. Prescribed—

℞ Decocti punica granati, Oj.; acidi hydrochlor. dil. ʒij.; mel boracis, ʒj.—Fiat gargarium; to be used frequently, and continue the application of the nitr. argent.

Seventh.—Amendment continues. Patient had a steady convalescence.

This lady, as soon as she felt able, left for the country, and went direct to the house of a very near relative. All the younger members of this family became affected with scarlatina, and two of them died. Willan states that "scarlatina faucium," as he calls these sore-throats, is capable of conveying or communicating by infection all the varieties of this disease. In Dr. Neligan's edition of Graves's Clinical Medicine, there is a case related of a lady having had sore throat—no rash—conveying the infection to a whole family; and in connexion with this subject the following remarks:—"That in acute and chronic diseases, a constitutional affection may display its existence by only one or two of the numerous symptoms which usually accompany it. This is to be expected where we meet with scarlatina occurring for the first time in this form; but in the case I have detailed, the patient had an undoubted attack of this disease in early life, and yet this second attack, in the masked garb of sore throat, was capable of conveying the infection, and propagating the disease in the most malignant form."

I think we may fairly conclude that the virus of scarlatina is more rife than is supposed, inasmuch as it assumes so many different phases. In Dr. Henry Kennedy's admirable treatise on the epidemics of this exanthema, from 1834 to 1842 inclusive, you will find the case of a nurse in Sir P. Dun's Hospital, in whom the virus ignited all the symptoms of continued fever, the patient having had the disease in an unequivocal form in early life. (a) Dr. Bower Harrison, of Manchester, in his paper on Scarlatina, relates the case of a lady who had sore throat, having previously had scarlet fever. He thinks that the influence of the poison in this case gave rise to a complaint which was not distinguishable from the common cynanche.

And now as to the question—How far these sore throats are prophylactic against the recurrence of the disease, with or without rash? In my own person, on the first accession of the disease, I suffered from simple sore throat, and although often exposed since to infection, particularly in the summer of 1853, I never had the disease with rash, but I have felt a sense of constriction of the fauces, and difficulty of deglutition, with general malaise, whilst in close attendance on a case of these bad sore throats. This I have been assured has been felt by many practitioners.

My idea is, that the sore throat, in the first instance without rash, is, to some extent, prophylactic against a return of a more severe type of this disease, but that it may recur again and again in these modified forms, which are deserving our most careful consideration, inasmuch as they are quite capable of conveying by infection the virus, which may be developed in the most fatal forms. In these remarks it is not my intention to introduce the different complications and sequelæ of this exanthema, but merely to state the treatment which I have found most effectual in these formidable sore throats. As regards the constitutional treatment, we must be guided by the age and stamina of our patient. In the early stage the use of purgatives is indicated, either a castor-oil draught or the acid infusion of roses with sulphate of magnesia, in some cases having premised a mercurial purgative. In the cases of children, a grain of calomel with a few grains of rhubarb may be the treatment most called for, and easiest exhibited. The apartment should be kept cool and properly ventilated, occasionally sprinkling some solution of chlorinated lime; sponging the neck and chest with tepid water, or vinegar and water, is most grateful to your patient, taking care that they are thoroughly dried afterwards.

In many cases we will find the tepid bath at bed-time procure your patient a quiet night, when more direct soporific remedies fail; and at the same time it will promote the secretion of urine, which in many instances is a source of anxiety to the practitioner. There is no golden rule as regards nourishment: in the case above it was indicated from the start, and in persons of lax atonic fibre is our sheet-anchor; and if not capable of being swallowed, should be regularly injected. Fresh barm, skinked, is not only antiseptic and slightly stimulant, but nourishing and laxative. I can recommend it with great confidence in scarlatina. Where we have great swelling of the parotid and sub-maxillary glands early in this disease, the local treatment should be somewhat as follows:—Apply large poultices, which in many cases afford great relief, or a few leeches under the jaws; in the second stage, a blister or blisters are often very serviceable. The inhalation of the steam of hot water or vinegar and hot water is most grateful, and besides induces diaphoreses, which in some cases is desirable. Gargles are naturally resorted to, and, where the patient is an adept in using them, frequently prove very useful. (b) The decoction of figs and nitrate of potash is an agreeable and emollient one to start with, and gave great comfort in the case above mentioned. After the third and fourth day we may prescribe a more astringent gargle, such as the decoct. granati, or tormentil, with hydrochloric acid and alum or borax, whilst at the same time we apply the nitr. argent. in solution, from about grs. xij. to ℈j. to the ʒj. of water, first having sponged

(a) Dub. Quart. Journ.
(b) M. Adams's suggestion.

off the ropy mucus. Bretonneau ascribed much success to the muriatic acid treatment in these cases. In the *Gazette Médicale de Stasbourg*, a new, and somewhat heroic treatment is advocated by Danion. He applies to the pseudo-membrane for five or six seconds, a small iron ball, brought to a temperature of 100 or 109 deg. (centigrade) having heated it in a saturated solution of salt. The result is exfoliation of the membrane; of seventeen cases thus treated fourteen recovered. This kind of cauterisation is not in general very painful, but it gives rise to difficulty of deglutition, very distressing, and which generally lasts from twenty to forty-eight hours.

ON THE

TREATMENT OF PLEURO-PNEUMONIA,

AS ILLUSTRATED BY SEVERAL CASES IN GUY'S HOSPITAL.

By S. O. HABERSHON, M.D., F.R.C.P.

Assistant-Physician and Lecturer on Materia Medica at Guy's Hospital.

The means most likely to ensure a return to healthy action, and to prolong life, are those which all knowledge of Medical science seeks to attain when rightly applied. The varied investigations which are made, the observations from multiplied sources, and the accumulated experience of the members of the Profession, as handed down in published works, are professedly designed for this object, to facilitate the cure of disease. The progress already attained falls far short of what might have been expected, and is perhaps even less than we are willing to acknowledge. How few diseases can be said to be cured by the appliances of Medical science! and very often all that can be done is to mitigate. It has been too frequently the case, that following in the ante-Baconian method, a few observations having been imperfectly made, a general law is deduced, and the intermediate steps supplied and constrained. Far be it from me to slight the noble works which have been handed down to us, but it is well to distinguish between the facts recorded, and the deductions supposed to be founded upon them; and in many cases it is evident that sufficient care has not been shown, and the observations too superficially made to warrant dependence upon them; in such cases it is better altogether to set aside the observation and begin *de novo*. There is a tendency, however, in the present age of sceptical philosophy, which would thoroughly sift the facts of every science, to overturn what is of infinite worth, and to deprive us of the legitimate gifts of our predecessors, because the facts do not agree with the observation and ideas of modern critical observers. We are reminded of this in the perusal of a most interesting discussion in the earlier part of the present year, between Dr. Alison and Dr. Hughes Bennett, on a subject full of interest to every physician, and one which will lead to a closer study of the phenomena of diseased action apart from the complications of treatment. The question at issue appears to be, whether the character of diseased action has undergone a change, or, to use the phraseology of some, that disease is presented under a different type; the observations of Laennec, Grisolle, Chomel, Andral, Stokes, Alison, Addison, Williams, Watson, etc., appear to show that such is the case, and the study of disease even during the last twelve years appears to confirm that idea in our minds. We are desirous, however, rather to leave that subject, and to consider the treatment of inflammation of the lungs as it is at present found among us: several things, however, we would premise:—

1. That the use of terms conveying an indefinite meaning, tends greatly to confuse, such as vital force, power of nature, degenerative action, etc. etc., and should be as much as possible avoided.

2. That most diseases must *not* be regarded as only an expression of a local state, but have their origin in a changed condition of the whole system.

3. That many diseases, and among them inflammation of the lungs, will in many instances spontaneously disappear, and healthy action be restored.

4. That pneumonia is a condition accompanied by exudation of blood constituents into the lung tissue, and associated with some definite general symptoms.

5. That this exudation, as well as the accompanying symptoms, are variously presented, according to modifying causes. Thus in some instances we observe little more than an inflammatory œdema, the stasis of the capillary circulation being followed by this serous effusion; as we find in the early stage of pneumonia with general miliary tubercles, where death takes place at a very early stage from the acuteness of the disease. Or, this œdematous condition is almost at once followed by gangrene of the lung, without consolidation having taken place, as we very frequently noticed in the influenza of 1848. Or, the exudation is of a more vitalized character, and the lung-tissue is rendered solid or hepatized, the product becoming re-absorbed, or destroying the lung-tissue, or rendering the part a dense, semi-fibrous mass. Or, it is of a less organizable character, corpuscular, or as it is in struma, perhaps albuminous, and more easily degenerates.

6. Among these modifying causes of pneumonia may be mentioned, 1. Atmospheric conditions, epidemic causes, as in the frequent gangrene of the lung in influenza of 1848. 2. The effect of impure air, leading to a typhoid state. 3. Again, the exhaustion from poverty and privation. 4. A most important modifying influence is observed where pneumonia arises in the course of other diseased action, sometimes as a mere complication; or as the natural development of the disease, as in pyæmia, in fever, the exanthems, in erysipelas, after surgical operations, or towards the close of exhausting disease. 5. It is modified by struma, or by cancer. 6. By the age of the patient. 7. By the condition of the pneumo-gastric nerve, or of the whole nervous system. 8. By cardiac disease. Or, 9. Lastly, there is modification where pneumonia has arisen from direct violence to the pleura or lung.

These varied conditions modify the course of the disease; the symptoms are altered, so that there may be all the apparent signs of typhoid fever, or it may be scarcely observed at all. Each instance must be separately considered, and the patient, not a *mere name*, the object of our treatment.

Bearing these facts in mind, we shall find that the treatment of pneumonia is very diverse, and that what might be most injudicious to one, may be apparently an advantage to another. The history of the treatment of the disease would occupy too large a space, and is not our object; but this the few cases detailed will suffice to illustrate.

Case 1.—Jemima P——, aged 16, a servant of all work, residing near Portman-square, was admitted into Guy's under my care, June 17th, 1857. Her grandfather had died of phthisis, but she had always enjoyed good health. For several months before her illness she had worked very hard; one week previous to that time she was seized with pain in the right side, increased on a deep inspiration; there was a dry cough, the skin became hot, and she had much headache and thirst; in this state she continued at work for several days. On admission, she appeared to have been a healthy girl, moderately well nourished; there was no tremor or prostration, the complexion slightly sallow, the skin moist and clammy, not particularly hot, the respiration 32, the pulse 85, feeble and small; there was slight diminution in the mobility of the right side of the chest, dulness at the right base, tubular breathing and slight bronchophony; under the left clavicle there was slight dulness, with some bronchial respiration. The tactile vibration was slightly diminished on either side: the sounds of the heart were normal, the tongue moist, slightly furred; there was some perspiration at night, and sleeplessness. There was loss of appetite, the abdominal organs were apparently healthy. She had not menstruated; the urine was healthy, sp. gr. 1020, the chlorides scanty.

She was ordered bicarbonate of potash gr. x. in saline mixture (citrate of potash,) every six hours: as food, milk and beef tea.

19th.—Less pain in the side, and no pain in the head; she had a good night, and less perspiration. Respiration 32, pulse 85.

20th.—The dulness at the right base and the bronchial respiration were less marked.

22nd.—Improving; slept well, no perspiration, tongue clean, appetite returning—meat diet ordered. A few days later, quinine mixture was ordered three times a day. On the 28th, the respiratory murmur was restored throughout both lungs; there was no dulness, the cough had disappeared, the skin was cool, the tongue clean; pulse 65. On the 30th she left the hospital nearly well.

This case appeared to have been one of slight pleuro-pneumonia, producing some effusion into the pleura with consolidation of the lung. The patient was a girl who had been overworked, and was in poor circumstances, and not

free from strumous diathesis. There was evidence of inflammatory disease of the chest, without urgent febrile symptoms; the clammy, perspiring skin appeared to indicate diminished power. It was evident that this was not a case for depressing remedies; and she was ordered as nourishment milk and beef tea; and as soon as the appetite returned was allowed meat; Saline medicines were given; but calomel, antimony and opium withheld; in a week, she was convalescent; and two weeks from the commencement of the attack, the signs of consolidation had disappeared. We believe that if mercurials in their mildest forms had been given, although at the end of the week the lung tissue might have been equally free, she would have been in a more prostrate condition, and convalescence much retarded.

Again, it may be said that she would equally have recovered without the use of salines; that would probably have been the case, but it may be that the salines facilitated the absorption of the effusion.

As to a stimulating plan of treatment, it appeared uncalled-for, there was not evidence of sufficient prostration of strength to warrant it; and the introduction of alcoholic fluid would perhaps have increased the work the lungs had to perform, without hastening their return to healthy action.

In this case, then, we believe salines, with nourishment as the patient could take it, were the best mode of treatment.

Case 2.—David T—, aged 27, a carpenter residing in the Borough, was admitted under my care into Guy's, August 27th, 1857. He had been accustomed to drink rather freely, but his previous health had been good till eighteen months ago, when he had a blow on the lower part of the chest, and subsequently severe pain at the part. On August 22nd he was seized with pain at the lower part of the left chest, with cough, and the symptoms increased till admission on the 27th. He then had an emaciated appearance, the cheeks slightly flushed; there was herpetic eruption about the lips, the skin was hot, but moist, the cough troublesome; appetite bad; the bowels loose; the tongue white. A large blister had been placed on the chest, and the surface was still raw. At the base of the left lung there were dulness on percussion, minute crepitation, some tubular breathing as well as friction sound; the expectoration was tenacious, and slightly rust coloured. He was ordered bicarbonate of potash, gr. xv., ipecacuanha wine, ɱx., in the julep of acetate of ammonia, every four hours. Beef tea and arrowroot.

29th.—The respiration was more easy; the cough and pain were less. On the 31st the tubular breathing and dulness were less; the tongue clean; he was allowed fish or chop.

September 3rd.—The respiratory murmur was nearly restored, and he was considered convalescent. Some pain, such as he had had for many months, still continued. He was kept in the Hospital till the 26th, and left well.

There was every indication in this case of pleuro-pneumonia at the base of the left lung; it continued for twelve to fourteen days, when the product which had been effused was apparently almost reabsorbed. He had not been very temperate in his habits, but there was no prostration of strength or typhoid symptoms to indicate the necessity for stimulants. We believe that mercurial preparations would have retarded his convalescence.

Case 3. (Reported by Mr. Beaumont.)—George Smith, aged 27, was admitted under my care into Guy's, June 27th, 1857. He was a married man, who had been employed as a stableman, and had been accustomed to drink freely, but had generally enjoyed good health till December of last year, when he took cold, and had a bad cough, which had continued more or less since. On June 19th, he was seized with severe pain at the scrobiculus cordis which lasted five or six days, and was then transferred to his loins; he had no pain elsewhere. He suffered from febrile disturbance, loss of strength and appetite; had constipation, and at night could not sleep. He was a strongly built man, of light complexion. He stated that he did not feel pain unless he took a deep breath, but felt very ill; the face was flushed, the skin hot and dry; there was no inclination for food, the bowels were open, but the tongue was much furred; pulse 120, respir. 27. On examining the chest the left lung was observed not to expand equally with the right; at the base of the left lung there was considerable dulness on percussion; there was tubular breathing, and bronchophony, but no diminution of tactile vibration. In front, the dulness extended above the third rib. He was ordered grey powder, gr. v.; followed by castor oil, ʒss.; and bicarbonate of potash, ʒj. in mucilage mixture, every four hours.

On the 29th he felt better, the skin less hot, but he had slept badly. The physical signs unaltered. Pulse 80, respiration 24. To repeat medicines.

30th.—The cough was trifling, the tongue cleaner, the skin of natural warmth; he had slept better, and there was some return of appetite. There was less dulness on percussion; and slight pleuritic friction sound was audible.

July 2.—The tongue clean, appetite good, skin cool; at the left base there was less dulness, and the respiration was becoming normal; pulse 70, respir. 20; the expectoration slight. He was ordered fish diet.

4th.—He was convalescent, sitting up, and said he felt well. Pulse 66, respiration 18. On the 17th he left the Hospital.

This patient was admitted with evident signs of pleuro-pneumonia, apparently of eight days' duration; almost the simplest forms of saline medicine were given, and in a week he was convalescent. The intemperate habits of the man, as a stableman, precluded all idea of local depletion; and the case appeared to indicate that in this instance, even of pneumonic consolidation, absorption of effused products took place with great rapidity, as much so, if not still greater than would have been the case if mercurials had been given to affect the system.

(To be continued.)

ON A CASE OF RECURRING FIBROID TUMOUR,

REMOVED FIVE TIMES IN THIRTY YEARS.

By ROBERT GEORGE HARDWICK, Esq.
House-Surgeon to the Leeds General Infirmary.

Elizabeth Lifton, aged 65, a strong, healthy looking woman, was admitted into the Leeds Infirmary under the care of Mr. Hey, February 27, 1857, on account of a tumour at the bend of the elbow. She is married, the mother of eight children, and has always been accustomed to work hard. Her family are healthy, and none of them have been known to be the subjects of any form of tumour. She first noticed a growth commencing in front of the right elbow thirty one years ago, and in a year and a-half it had increased to the size of her fist, being sessile, of purple colour, rather soft, not lobulated, but of even surface. It was removed by the knife, and did not return for several years, but eventually made its appearance by the side of the cicatrix; it grew rapidly, having a rounded form, and distinct peduncle. It was then ligatured, according to her account, in three divisions. After a year or two it again appeared, growing slowly in three lobes, which sprung from a single narrow base; it was removed this time by chloride of zinc, applied in the form of a paste. There was no return for some years, after which it again grew slowly, having a lobed form, and occasionally bleeding a little. Chloride of zinc was tried a second time, the tumour entirely disappearing under its use. It is now ten years since this last application of caustic. Her arm continued well and sound till four years ago, when the tumour returned again; it has been gradually increasing in size till the present time. The patient could not remember the dates distinctly, but she seems a very intelligent woman, and gives, on the whole, a very clear history of her case. She says that she never suffered pain in any of the growths till within the last month, and that her health has never been in the least impaired. The tumour is now about the size and shape of a human kidney, but consisting of nine or ten very distinct pedunculated lobes, varying in size from a large walnut to a marble, and all springing from a narrow, flattened base, the length of which, at its attachment to the skin, is about 2½ inches. There is a well-marked cicatrix resulting from a former operation, but the tumour springs from healthy skin near to it, and about an inch to the outer side of the brachial artery. The tumour has a purplish red colour, and on the most prominent parts of two or three lobes there are superficial ulcerations, of smooth surface, and without well-marked granulations, apparently produced by friction, and very similar to such as are sometimes seen on fatty tumours. It is rather soft, elastic, not tender, but giving a "numb sensation" when touched. There is a

slight discharge of an offensive odour, and the ulcerated surfaces readily bleed. She states that before the ulcers form, the skin becomes "dark, with fluid under, as if it had been trapped." Some of them have healed, leaving a slightly depressed cicatrix. There has never been any enlargement of the axillary glands.

On March 7th, the tumour was freely excised, together with the surrounding skin for a considerable distance. It was found to extend deeply into the cellular tissue, but was cleanly dissected from the muscle, to which it did not seem to have formed any attachment. The hæmorrhage was rather copious, and numerous vessels required to be ligatured. The wound was dressed with wet lint, and left to heal by granulation. Cicatrisation rapidly advanced, and in about a fortnight she was made an out-patient.

On examining the tumour, all the larger lobes were found to consist of a thin purplish blue capsule (apparently altered skin), filled with red grumous material, the whole bearing a strong resemblance to softened spleen. The smaller lobes were composed of a yellowish, firm, but slightly friable matter, breaking down in their centre into the red degeneration before mentioned; this change had taken place to a greater or less extent, according to the size of the lobes. The pedicle on section had a dull fibrous appearance, mixed up with yellow substance like that found in the smaller lobes; it was much softer, as well as less condensed and tenacious, than simple fibrous tumour. On examining a portion of the pedicle under the microscope, the mass was found to consist of long awn-shaped cells, closely matted together, and mixed with numerous dark granules. No simple fibrous tissue could be found, though diligently sought for. The cells seen free and floating were all either oat-shaped or approaching to that, having long tails, which in a large proportion were bifurcated; they were dimly shaded, and most of them contained dark granules, evidently from commencing degeneration. A few only contained nuclei, indistinctly seen, and not swelling out the cell-wall at the point. There were also floating free a small number of oval bodies, about the size of the nuclei, and many dark granules. The soft grumous matter taken from the larger lobes was so crowded with dark granules, together with numerous large dark granular bodies (such as are seen in atrophic softening of nervous and other tissues), that the form of the cells could not be distinctly defined; but they seemed to be of the same character as those above described.

This patient is now residing at Birmingham. I heard from her to-day, and she tells me that she is in good health, can use her arm as freely as ever, and there is no appearance of the tumour returning.

I considered this case worth recording, not only because recurring fibroid tumours are rather uncommon, but also on account of one or two features of peculiar interest. The fact of its being removed in three different modes would have been very instructive, if the dates could have been more accurately ascertained. However, it did seem that the tumour returned much sooner after the ligature than any of the other plans. Also, if the patient's account is to be trusted, it is very remarkable that, after the old growth had been removed by being ligatured in three portions, the new one should take on a three-lobed form. But the tumour appeared to have a tendency to become more lobed each time it returned; for the first growth was sessile; the second was pedunculated, or as it were first assuming the form of a lobe; the third had three lobes; the fourth was more lobed still; and the last growth was composed of nine or ten distinct lobules. The tumour did not at each successive return assume more the characters of malignancy, as is often the case, but even up to the last the patient's health remained good; she had not lost flesh, and there was neither pain nor discharge likely to wear her out. On the contrary, the tumour, after having arrived at a certain size, almost ceased to grow, and on being examined was found to be far advanced in degeneration. In this case also a much longer period elapsed between each removal and the next recurrence than in others that have been reported. Notwithstanding these slight differences in the history, I think the growth, which I had the opportunity of examining, clearly belongs to the class of recurring fibroid tumours; for its general appearance on section, though nearly allied to the simple fibrous form, was not so firm and tough, and the microscopical characters, taken collectively, were quite conclusive. This was also the opinion of Mr. Hey.

November 13, 1857.

CASE OF VERTICAL DISLOCATION OF THE PATELLA.

By R. J. WILSON, Esq, M.R.C.S.

On March 19th of the present year a butler was accidentally knocked off his chair; he fell on the floor with his left leg slightly flexed and undermost, consequently resting on its outer side. A fellow man-servant briskly brushing past while he was thus lying, stumbled over him, and fell heavily, one of his knees coming in violent contact with the inner edge of the butler's left patella. Violent pain immediately resulted, accompanied by a feeling of faintness—the leg was immoveable and now extended. Feeling sure something was put out of place, I was hastily summoned—saw him five minutes after receipt of injury—found him pale and complaining of much pain about the knee. On examination, found the patella dislocated vertically, its inner edge resting on the outer condyle of the femur, while its outer one was tilted up immediately over the inner one.

As much difficulty has generally been experienced in the reduction of this unusual dislocation, I anticipated some trouble. First I tried what pressure on the elevated edge in such a direction as to bring it into its natural position, would do; this was painful and failed; then forcible flexion of the leg; this also failed and gave great pain.

It now occurred to me that rotating the thigh well outwards, pressing decidedly and equally on the elevated edge, and at the same time flexing the leg on the thigh, might overcome the difficulty. I therefore raised the entire limb, and taking the lower part of the thigh in the left hand, rotated the thigh well outwards; with the palm of the right hand pressed firmly on the raised edge of the patella, the fingers fixed against the outer side of the knee. An attendant had been requested to forcibly flex the leg on a signal being given. This was given while the limb was being lowered. The leg was flexed, and the misplaced patella returned to its proper position. Had this effort failed, I should have sent for chloroform, and administered it. Since its introduction I have not seen a case of this rare dislocation reported. In the present case the patient was seen soon after receiving the injury, and the reduction was accomplished in less than twenty minutes after the dislocation occurred.

The after-treatment, consisting of a bandage to the knee, lead and spirit lotion, light diet, and perfect rest, prevented inflammatory mischief; though for four or five days there was much tenderness and heat about the knee. In sixteen days he could get about well.

St. Leonard's-on-Sea.

THE LONDON PRACTICE OF MEDICINE AND SURGERY.

ST. BARTHOLOMEW'S.

PECULIAR POLYPOID GROWTH, OF LARGE SIZE FROM THE RECTUM—REMOVAL—RECOVERY.

(Under the care of Mr. LLOYD.)

A thin and somewhat haggard looking woman, aged 62 was under Mr. Lloyd's care in Treasurer Ward a short time ago, whose case excited much attention. Protruding from her anus was a large growth the size of a small fist, and so much lobulated that it resembled a bunch of adherent grapes. It was generally within the bowel, and preserved a soft, mucous, slimy surface in all parts, though the slightest exertion forced it down. It was of a florid pink colour, and moderately firm and elastic to the touch. Its base of attachment, which was to the mucous membrane of the gut above the sphincter on the right side, was broad and expanded. Its whole appearance indicated great vascularity, and in its pedunele might easily be felt several arteries, one of which had as strong a beat as the radial at the wrist. Mr. Lawrence, Mr. Stanley, Mr. Wormald, and Mr. Paget, all examined the growth, and with Mr. Lloyd all admitted that they had never before seen a similar one. The account which the poor woman gave of her symptoms, as obtained by Mr. Daniel, the House-Surgeon,

was as follows :—"Nine years ago she noticed a small swelling, which she imagined to be piles; the growth gradually increased in size. For the first four years there was no bleeding, but ever since then there has been a liability to repeated hæmorrhages. There has always been more or less pain, but latterly more severe than usual. The growth has generally remained in the bowel, but she could always get it down at will. When it was down she has always been in much aggravated pain."

Considerable discussion as to the nature of the growth took place, some thinking it of malignant nature, and others preferring to regard it as a kind of fibro-cellular polypus of unusual magnitude. Its long duration, and the failure of a most careful examination to detect any evidence of secondary disease, were facts strongly against its being of cancerous nature, as was also its pedunculated form. The woman's cachexia and emaciation might also be well accounted for by the repeated and profuse losses of blood to which she had been subjected. About the proper surgical measures there was less room for debate. Mr. Lawrence joined Mr. Lloyd in an opinion adverse to trusting to the *écraseur* with such large arteries as those felt in its base, and excision was, of course, out of the question. The ligature was accordingly determined upon. The operation was performed on August 27, the tumour being dragged well down, and its base tied in three ligatures. As a further security a single strong cord was afterwards made to surround the whole base, including together the three parts into which the others divided it. The growth bled somewhat under the handling necessary for this procedure. It was wrapped in lint, and allowed to remain protruded. For the purpose of microscopic examination Mr. Lloyd cut away some small portions, but not so as to risk any loosening of the ligatures. The woman did not suffer very much during the separation of the mass; it shrunk away rapidly, and before the ligatures became loose had almost wholly disintegrated. The ligatures came away on the twelfth day, and a week later the woman left the hospital. She was already beginning to improve in health, and was quite free from local discomfort.

The evidence afforded by the microscope was not so positive as could have been wished. No elements of any form of cancer were, however, discovered. The tissue was soft, very vascular, and lowly organized. It showed in the field of the instrument nuclei, and numerous fibroid and elongating cells imbedded in a granular gelatinous matrix. The fibroid element was scantly proportioned to the cellular and plastic. It will be a matter of much interest to know whether any recurrence ever takes place, since its structure, taken altogether, did not materially differ from that of the locally recurrent tumours. Mr. Lloyd, we believe, entertains a strong hope that the poor woman will be permanently cured.

REPORT ON THE TREATMENT OF PROLAPSUS UTERI.

(Continned from page 526.)

THE METROPOLITAN FREE HOSPITAL.

PLASTIC OPERATIONS FOR PROLAPSUS UTERI.

(Cases under the care of Dr. BARNES.)

Dr. Barnes has operated at this Hospital on two cases, and in both with much benefit. In the first the woman, aged 35, had sustained rupture of the perinæum close up to the sphincter ani, but not involving that muscle. She suffered most severely from the consequent prolapse. The parts were pared, and united by the shotted suture. The sphincter ani was incised on the left side. On the third day after the operation a very profuse hæmorrhage from the wound occurred, which was with difficulty arrested by the continuous application of cold. This tore open the wound to a considerable extent, and retarded the healing. There remained permanently a minute fistula just in front of the bowel, but firm union was obtained throughout the rest of the part operated upon, and a good perinæum was the result. It is now nearly three years since the operation, and the woman, who suffers from chronic bronchitis, has repeatedly come under notice. She has never had the least of external prolapse since its performance, although she still at times suffers from dragging and bearing down of the womb.

The second case was operated on on March 17, 1857. The perinæum had the appearance of being torn to the extent of about an inch, and there was complete prolapse of the uterus, with partial of the bladder. The patient was a married woman of about 30. After the dissection three shotted sutures were applied, and the skin was also further united by an interrupted one. The parts united perfectly. This patient has not been seen recently, but no relapse of her affection had occurred when last she attended.

Dr. Barnes informs us that he has operated on two other cases besides the above, and with equally successful results. He entertains a high opinion of the usefulness of the operation.

PLASTIC OPERATIONS FOR PROLAPSUS UTERI.

(Cases under the care of Mr. HUTCHINSON.)

Case 1.—*Severe and old-standing Prolapsus, with Ulcer on the Os—Plastic Operation—Good Union—Perfect Cure. Under observation fer more than two years afterwards.*

Sarah M., aged 66, widow, two years under observation, the mother of a large family, had suffered for fourteenyears from complete prolapse of the uterus. She had been under several specialists on account of it, but had obtained no permanent relief. It did not appear that there had ever been any actual laceration. The uterus whenever she stood hung between the thighs, and in parts its surface was almost cuticular from friction. It was much enlarged from chronic inflammation, and an ulcer with hardened edges, and the size of a halfpenny, occupied its anterior lip. There was some prolapse of the bladder, and the rectum was also in a slight degree involved. Such being her condition, she had for years been precluded from any active employment, and being of cheerful energetic temperament listened with joyfulness to a proposal to relieve her by operation. Her daughters did all they could to dissuade her from it, thinking her too old; but she persisted in her determination. It should be stated that her vigour was extraordinary for her years. On the left side of the abdomen was a fatty tumour, the size of a fist, for which she had long worn a truss, in the belief that it was a hernia.

The operation was performed on August 17, 1855. A free paring having been effected, the length of the denuded surfaces being about an inch and a half, the quilled suture was applied very deeply. The skin was united by the interrupted suture. No incision of the sphincter ani was practised. At the same time, while under chloroform, the fatty tumour was excised from the abdominal wall. She rallied well afterwards, and nothing could have been more satisfactory than her progress. The quilled sutures were cut away on the eighth day, while the interrupted one was allowed to remain nearly two weeks. When the latter was removed it was not causing the slightest irritation, and passed through a track in the skin only just as large as needful to admit it, no ulceration whatever having occurred. During the third week, the woman began to leave her bed, and at the end of a month all discharge had ceased. The union was complete throughout the whole extent, affording an artificial perinæum so long that it came nearly as far forwards as to the meatus. She did not, however, experience any inconvenience in micturition.

This patient was repeatedly seen during the first six months after the operation, and Mr. Hutchinson has since had frequent opportunities of inquiring of her daughters as to the permanency of her cure. She now lives in Lancashire. The accounts received have been that from the date of the operation to the present time (more than two years) she has never in the least degree suffered from her former complaint. She has ever since enjoyed good health, and been able to go about as much as her years permit, without inducing either pain, prolapse, or discharge. It should be added that on tactile examination three months after the operation it was ascertained that the uterus was as high as the finger could well reach, that all shrinking of its tissues had vanished, and that the ulcer was soundly treated. This examination was made directly after a long walk to the Hospital.

We have related this case at full, as it possesses peculiar interest on account of the age of the patient, the severity of the affection, and the permanency of the cure. It must be remarked that the vulva was closed further forwards than would have been suitable had the patient either been married or of marriageable age. By so doing, a great guarantee as to completeness and permanency of result is obtained, and in

those in whom age makes it a matter of indifference it is consequently better to bring the union well forward. Indeed even in younger persons no great risk is encountered, as nothing is easier than to divide the anterior edge of the artificial perinæum, should it be found requisite.

Case 2. Prolapsus Uteri, and with Polypus—Removal of the Polypus, and Plastic Operation on the Perinæum—Cure.—One year under observation.

Mrs. B., æt. 46, married, and the mother of a large family (her husband living), had been under treatment for more than a year past, on account of prolapsus uteri and vaginal discharges. She was at length transferred by the Physician, under whose care she had been, to Mr. Hutchinson, in order to the performance of the vaginal operation. Her annoyance had been very great, and she willingly consented to submit to any measure likely to relieve her. The perinæum had been lacerated in some one of her labours, but not to a very great extent. In addition to the prolapse, she was found to have a small pedunculated polypus growing from the anterior lip of the uterus. This was removed by torsion before the operation was performed. She was pale and cachectic. The operation was performed in December, 1856, and the parts united well. During the first ten days, however, she was ill from the effects of acute bronchitis, by which her recovery was much delayed. She at length, however, regained her strength completely, and become much stouter than she had been before. Up to the present time no prolapse has ever occurred since the operation, though she complains that on standing she still suffers from dragging pains in the back.

Details of the Operation.—In this case, the preceding one, and the one to follow, an exactly similar operation was performed. The flap of mucous membrane removed was much larger than in the method practised by Fricke and some others. Thus the posterior part of the vagina was fully denuded to a distance of at least an inch and a half from the perinæum. Taking the anal commissure as the starting point, and measuring an inch and a-half upwards into the vagina, then from the same point from an inch to two inches on the margin of each side of the vulva, just at the junction of the skin with the mucous membrane, and lastly connecting the uppermost extremities of these measurements, would accurately map out the portion removed. One of the chief points on which Mr. Baker Brown has so well insisted, is the absolute necessity for making a large flap, instead of merely denuding two narrow slips. By the latter method a thin perinæum only is obtained, while by the former the vagina is much contracted in the lower two inches of its course. Upon attention or neglect of this matter will much depend the success of the case. Even in Mr. Brown's book the plate given does not show the denuded surface as extending sufficently high on the posterior wall of the vagina.

Case 3.—Ruptured Perinæum, and Prolapse of the Uterus—Plastic Operation and Cure.

Of this case, as only three months have passed since its performance, we need say but very little. The patient was a single woman, aged 49, who had borne a child in early life, and suffered a lengthened laceration of the perinæum, not, however, involving the sphincter ani. For years she had been subject to prolapse of the uterus, the cervix of the organ being somewhat enlarged and indurated. The usual operation was performed, and she recovered without a bad symptom. Hitherto no relapse has taken place.

(This series will be concluded next week.)

THE CITY HOSPITAL FOR CHEST DISEASES.

BRONZED SKIN, AND PROBABLE DISEASE OF SUPRA-RENAL CAPSULES.

(Under the care of Dr. Edwards.)

E. D., aged 48, married, a schoolmistress residing at Mile-end, came under treatment March 4, 1857. She is considerably emaciated; skin generally of a bronze hue, brightest on face, and most intense in the flexures of the joints. Pulse 120, small and weak; tongue nearly clean, and moist; bowels much confined; urine natural in quantity and quality. Catamenia regular, but she has dysmenorrhœa, and frequent leucorrhœa.

Complains of pain in the epigastrium and back of neck, but "is more troubled than anywhere in the small of the back." Is excessively weak, languid, and nervous, and says that she has lost much flesh lately. Has cough, with scanty yellow expectoration.

Auscultation.—Good breathing all over both lungs anteriorly and posteriorly. Heart sounds natural.

History.—Is married, in good circumstances, but has been much troubled recently about family affairs. Has had no children for twelve years. Has had a cough for six or seven years in winter. During the last six months she has rapidly lost flesh and strength, but has been much worse for the last month. Was never of very fair complexion, but both herself and her friends have noticed that she has become much darker lately.

Ordered—Ol. morrhuæ, ʒij. ter die; Mist. quinæ, (gr. ij.), c. magn. sulph. ʒj., et sp. æther. co. ʒss. ter die.

For some time she appeared to be improving under this treatment, and gained somewhat in flesh and strength, the colour, however, remaining much the same; but about the middle of April she became unable to take the oil from sickness. The following note was taken of her condition, April 21:—

Complains of pain all over her body, especially in her back, and "overpowering weakness." Colour rather more intense; slightly marked on mucous membrane lining cheeks. Has burning sensation in her hands. Bowels open two or three times a-day. Sleeps very badly at night.

Pt. mist.—Pulv. ipecac. co. gr. v. o.n.

From this time she gradually became weaker, and more emaciated, and the colour of her skin became more intense up to the end of June, when she ceased to attend the Hospital.

HOSPITAL NOTES.

IMPROVEMENT IN SIGHT AFTER THE OPERATION FOR STRABISMUS.

We recorded last week two cases in which the degree of deficient sight, caused by an internal squint, was very unusually great. Cases illustrating the same peculiarity in a minor degree are of course very common, and come under notice every day at the Ophthalmic Hospital. Too often such patients, however, cease to attend soon after the cure is complete, and the Surgeon, therefore, has no opportunity for estimating the full extent of the ultimate gain. It is in private practice that some of the most pleasing facts of this kind come to the operator's knowledge. As further corroborative of our remarks, we may just mention here the case of a lad, some years ago under Mr. Lloyd's care in St. Bartholomew's, for a bad squint. The offending muscle was divided, and symmetry restored. He was at the time a watchmaker's apprentice; but, owing to his very defective sight, was quite unable to learn any of the more minute departments of the trade. Mr. Lloyd informs us that he has since often seen him, and that the restoration of sight by the operation was most satisfactory, and that he is now able to see to do even the very finest work.

"NECROSIAL FEVER."

Apropos of the case of a little boy then on the operating table, Mr. Simon made some remarks the other day on what he terms necrosial fever. He observed that it was not unfrequent to have cases present themselves in which several bones have become simultaneously diseased. The subjects were usually squalid and cachectic children, and the history given was generally that they had been attacked by sudden feverishness, and had quickly become very ill, whilst abscesses had formed over several different bones. Of such, the almost invariable result is necrosis of parts of the several bones affected, and either exfoliations occur, or subsequent operations are required. All surgeons will admit the existence of a class of cases fitting with Mr. Simon's description, though there will doubtless be considerable difference of opinion as to the suitability of the name which he proposes. Is not the fever which accompanies these multiple necroses often of pyæmic nature? Are not some of the cases referred to in-

stances of the acute outbreak of hereditary syphilis, under the depressing influence of cold, want, etc.? Are not some others really of a rheumatic pathology? These are questions which will suggest themselves, and in order to find answers to which a more minute investigation of the subject will be requisite. In the meantime Mr. Simon's designation will be very useful in drawing attention to the class.

CASE OF SPINA BIFIDA SUBMITTED TO OPERATION.

It is very rarely that cases of spina bifida come under our notice in Hospitals as the subjects of treatment, the affection being generally left to nature, as one irremediable by art. About three years ago, Mr. Paget attempted to produce obliteration at the neck of one of very large size, by passing around it a ligature, which was to be made to cut its way gradually. The child, however, a very fine one, died before the ligature had come away. Since then, two cases were treated at University College Hospital by Mr. Quain and Mr. Erichsen respectively, and both ended fatally after operations. In a fourth, under the care of Mr. Hutchinson, a simple puncture and withdrawal of fluid was followed by fatal arachnitis of the cord, pus having been secreted into the sac. Last week, a very interesting case was operated upon by Mr. Borlase Childs, at the Metropolitan Free, and, we are sorry to say, has conformed to the general rule as to result. The child, a remarkably healthy one, was a month old, and quite free from any cerebral affection. On its back, over the last lumbar and first sacral spines, was a sac the size of a pigeon's egg, to which the skin adhered very closely, and over the centre of which the coverings were very thin. Still ulceration was not at all immediately threatening, and about its base the integuments were thick and sound. Thinking that it would be practicable to push the serous sac back into the spinal canal, and retain it there by pressure, Mr. Childs determined to dissect up the skin from over it, and then cut away the thinned portion, and unite the sound parts across. This was done; but, owing to its close adhesion, the sac itself was wounded in two or three places. The skin was united on hare-lip pins. The operation, from the difficulty of the dissection, lasted a considerable time, during the whole of which the infant was under the influence of chloroform. Several times it became alarmingly rigid, whether from the anæsthetic or the irritation of the cord it was difficult to say. It remained very restless and ill afterwards, and died on the following morning.

The triumphs of operative surgery in dealing with cases of spina bifida have, we suspect, been very few indeed; and, remembering that it is a disease in which every now and then a spontaneous cure is effected, it may fairly be held doubtful whether any of the proceedings hitherto practised are really justifiable.

AMPUTATION AT THE SHOULDER-JOINT FOR TUMOURS IN THE HUMERUS.

Two cases of amputation at the shoulder for morbid growths in the head of the humerus have recently been under our notice, and a third (under the care of Mr. Critchett in the London) is, we believe, shortly in prospect. In the first, Mr. Henry, at the Middlesex, was the operator, the tumour being one of mixed character, partly mycloid and partly fibroplastic. The woman recovered well, but we hear already that there are evidences of a return of the disease. The subject of the second is a healthy-looking man, aged 62, under Mr. South's care in St. Thomas's. Eight years ago he sustained a bruise on the right arm from a piece of timber, but it did not lay him up long, and no tumour was noticed till within the present year. As usual, deep-seated quasi-rheumatic pain in the bone was the first symptom, and after it had existed some months enlargement was noticed. When admitted he still had fair motion in the joint itself, but about a hand's breadth below it was a tumour which involved the whole shaft of the bone, and was nearly globular, as large as two fists. It was soft in parts, and had a false fluctuation. The tumour, on examination after removal of the limb, proved to be of very peculiar nature; its structure was soft and grumous, like disorganized blood clot, and was contained within a thin shell of expended bone and periosteum. Very little of mycloid structure could be found, and no elements resembling those of cancer. The man has made a good recovery.

NOTES AND QUERIES.

He that questioneth much shall learn much.—Bacon.

No. 223.—Abortion.

How soon after conception may a woman abort? Will the secrecy of such abortion render the woman liable to the law for having "concealed the birth of her child?" A.

No. 224.—The Preparations of the late Mr. Lansgtaff.

I am extremely anxious to know into whose hands the preparation of Fallopian-tube conception, described by Mr. Langstaff in the Med.-Chir. Transactions, went after his death. If you would permit me, through the medium of your Journal, to express this desire with the object of seeing the preparation, you would greatly oblige me.

4, Savile-row, Nov. 20, 1857. Robert Lee.

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Medical Times & Gazette.

SATURDAY, NOVEMBER 28.

MEDICAL TREATMENT OF MR. AUGUSTUS STAFFORD.

The painful circumstances attending the death of Mr. Augustus Stafford have become a subject of general conversation, not only in Professional circles, but in that class of society of which he was so popular a member, and among the public generally, to whom he was known as a politician, and by his charitable exertions in our Eastern Hospitals.

The facts of the case may be summed up in the following statement:—Mr. Stafford was not a robust man. His general health had suffered considerably after the parliamentary inquiry into his Secretaryship of the Admiralty under Lord Derby's administration. His labours in the Eastern Hospitals had also tended to undermine his strength, and his parliamentary attendance had not been without a depressing effect upon his energies. We can state, from personal acquaintance with him, that he had suffered some years ago from such occasional giddiness and faintness as are met with when the heart's action is weak; and from the evidence adduced at the inquest it appears that he had been attended by Dr. Griffin, of Limerick, for a "pain in the stomach," the first time a year ago, and again, by Mr. Cutler in London last summer, and that he was in the habit of passing large quantities of watery urine. He was as well as usual on the 4th of this month, when the "nasty old pain" attacked him, and Dr. Griffin was sent for again. He saw Mr. Stafford about half-past six on that evening, and remained with him nearly two hours. Here is Dr. Griffin's account of the case in a letter to Sir Henry Marsh:—

"The pain was as severe as usual, but longer continued, and

as he expressed it 'most unendurable.' Though it was some hours since he had taken a meal, I thought it well to give him an emetic at once, lest some irritating cause might exist in the stomach; it was found as before extremely difficult to get it to act, and the same powder was repeated three times before it did so. The stomach was then fully discharged of some half-digested food mixed with greenish bile. I then gave him a full dose of laudanum with tinct. of hyoscyamus and ether, about 50 drops of each; this was repeated two or three times within two hours (except the ether, which was only given twice), but without the least effect. He vomited once again, however, by which some was rejected, though his pain was excruciating, and as he said, 'unendurable.' I was unwilling to go further without more time, and so proposed to take some blood from his arm, which I thought would make the remedies more effectual; to this he at once assented. Hot applications and frictions with laudanum not giving the least relief, and chloroform not being at hand, I, therefore, took a good deal of blood (about 30 oz.) from a large orifice, hoping to induce deliquium; but no such result followed, nor any abatement of pain. He assured me it was as bad, or rather worse, than ever. As I had often observed that narcotism from laudanum never occurred in cases where there was either excessive pain or excessive hæmorrhage, I gave, after an interval of half an hour, another dose to the same amount of tinct. opii and tinct. hyoscyami, that is, about 50 drops of each. Half an hour afterwards he seemed easier, and fell into a quiet sleep. I remained an hour or more, and finding him quite at ease left for the night. All that I have described occurred before 9 o'clock, p.m. At half-past six o'clock in the morning a message reached me to say the bandage had loosened, that he had bled considerably, but that the arm being bound up again, the bleeding had ceased. I got there about eight o'clock a.m., and having bound the arm properly, observed, with some surprise, that there was a heaviness about him, with a constant tendency to sleep, and occasional stertor. As it was about eleven hours since the last dose of the medicine had been given, I did not mind this much at first, taking it for granted its principal effect had taken place during the night, and that this was only some remaining trace of it. In less than an hour, however, it had evidently increased, and I then became much alarmed, not knowing what point it might reach before the time when such effects wear out. The result was, that, after giving him coffee, brandy, ammonia, and other stimulants, until he could no longer swallow, and walking him about as long as it was possible, the symptoms increased, so that nothing kept him out of the stupor but the most powerful slapping on the sole of the feet with flat thin sticks of soft pine. Dr. Wilkinson and several of Mr. Stafford's own men assisted me, and this painful process lasted from half-past 8 o'clock in the morning until half-past six o'clock in the afternoon, being all through so severe as to make us apprehend serious injury to the feet, though there seemed no alternative; the same application being tried on his hands and on other parts, but to no purpose. The symptoms continued to increase hourly until near six p.m., when there was some mitigation, and between that and seven p.m., they wore off so rapidly that, at the last named hour all immediate danger was over. He was placed in bed, and slept at intervals during the night, but was easily roused, and very nervous and irritable. Next day he was pretty well, his pulse substantial at ninety; but on that day and the days that followed he had considerable suppression of the action of the kidneys, and for the first two or three the urine was dark-coloured and bloody, making only the day he went to Dublin some approach to its natural colour. As he had determined on leaving Cratloe, I could not put him under regular treatment; and I thought, besides, a low marshy place on the Shannon unsuitable to him."

In a letter to Mr. Rynd, Dr. Griffin gives some further details as to the state of narcotism, and the energetic efforts made to restore animation. He says:—

"After walking him about until it was no longer possible to do so, and giving him coffee, brandy, ammonia, and other stimulants, he became so bad that he lost all consciousness and all power of swallowing, and I was able to rouse him to a kind of partial consciousness only by dint of the most powerful bastinadoing with flat deal sticks, a quarter of an inch thick, on the soles of the feet. Dr. Wilkinson and several of his own men assisted me. This painful process lasted from half-past eight in the morning until half-past six in the afternoon, being all the while so severe as to make us apprehend severe injury to his feet, which seemed in a dreadful state, though there evidently was no alternative, for we tried the same application to the hands and other parts, but quite in vain. At one time the respirations fell to about six in the minute—the pulse 140, almost imperceptible, the limbs cold, and the breathing, even at these long intervals, barely sufficient to make the elevation of the chest visible, notwithstanding an amount of severe slapping on the feet that made such a remedy in such circumstances appear quite cruel and unfeeling. Being convinced, however, that the effect of the narcotic would decline within 24 hours from the time of taking it, I urged the men strongly to persevere, and they did so. The symptoms showed some mitigation before six p.m. They then wore off rather rapidly. He was easily roused, and before seven p.m. all immediate danger was over. About eight p.m. being placed in bed, he spent the night in a moderately deep sleep, but was easily roused, and very nervous and excitable. Next morning he was pretty well."

Mr. Stafford lived ten days after all this, which happened on Thursday, the 5th. He took a drive in a pony carriage on Monday the 9th, and on the 10th he went in a carriage to Limerick. On the 11th he went to Dublin, and was seen on the evening of that day by Sir Henry Marsh. Sir Henry found him in a state of extreme debility, and says that he "certainly was not fit for such a journey as he had taken that day." He deposed that after Mr. Stafford's arrival in Dublin there was an almost total suppression of urine for about 36 hours, and that afterwards the urine contained a large quantity of albumen. We have no very definite account of the subsequent symptoms, except the following statement of a servant:—

"Mr. Stafford was very weak, and inclined to be sleepy up to the hour of his death. Mr. Stafford during the night would sleep for about a minute, breathe very hard and snore, and then he would start up in a fright; he was always nodding asleep and snoring up to the time of his death; before that he never snored when in health; the last day he was alive he did not snore so much."

Death took place on the 15th, four days after arrival in Dublin. The following is Mr. Porter's account of the post-mortem examination of the body forty-eight hours after death:—

"The only external marks of violence on the body were a slight abrasion on the left leg, and the incision of the operation for venesection, performed on the right arm. Signs of decomposition were well marked on the upper part of the chest and arms, which had a greenish appearance; the veins in this situation looked dark, and contained air; liver well marked on posterior aspect of the body; pupils of eyes natural in size; some of the superficial veins of forehead were somewhat distended. On opening the thorax, I found the lungs healthy, with the exception of a few old adhesions of the right pleura; both sides of the chest contained about five ounces of bloody serum; the heart was larger than natural, very soft, and felt emphysematous; its parietes greatly thinned, and its substance easily torn; it contained very little blood, and a fibrinous clot lay in the right ventricle. There was a large quantity of fat on the right side of the heart, and on placing it in a basin of water it floated. On the front of the trachea, about the bifurcation, a tumour was found about the size of a walnut; it consisted of a cyst, containing a soft white substance resembling putty. On opening the abdomen, a layer of fat was divided an inch thick; the cavity contained a small quantity of bloody serum; the liver was larger than natural, and two tubercles were found developed in it; the gall-bladder contained numerous biliary calculi; the stomach a little fluid, and was rapidly undergoing decomposition; the kidneys were somewhat larger than natural; the bladder was nearly empty; the intestines generally appeared normal. On examining the head, I found some slight subarachnoid effusion, but no congestion of the membranes or substance of the brain. On cutting into the brain, scarcely a drop of blood was visible, and its ventricles contained no serum; at the base, about the origin of the olfactory nerves, there was some

slight fulness of the vessels, but not to any considerable extent."

Before leaving the *facts* of the case it may be well to ask what was the exact quantity of narcotic medicine administered? Here Dr. Griffin's statement must be our guide. He says he gave "*about* fifty drops each of laudanum and tincture of hyoscyamus," and repeated this "two or three times within two hours." Some of this was vomited. Then, *chloroform not being at hand*, about thirty ounces of blood were taken; and in half an hour a fourth dose of the two narcotics was given. So that in the space of two hours and a half *about* 200 drops of laudanum, and 200 drops of tincture of hyoscyamus were taken.

It is hard to say how much opium this would represent. According to Dr. Garrod's observations the strength of the Dublin tincture is such that twelve minims and a half contain one grain of opium: so that if by 200 *drops*, minims are implied, Mr. Stafford would have taken some sixteen grains of opium in less than three hours. But a drop is less than a minim, and part of the first three doses was vomited.

An interesting physiological fact, illustrated by the case, is the effect of loss of blood upon the action of narcotics. It was not until eleven hours after the last dose had been given, and the accidental bleeding had occurred, that dangerous narcotism was observed, though the servant says that two hours after the last dose his master was "asleep, but breathing very hard," and at two in the morning he was "breathing harder than he did at eleven o'clock;" yet at five he got up, and went to the servant's room to get his arm bandaged there. The servants became alarmed, and sent for Dr. Griffin. The subsequent events we need not recapitulate. The loss of blood accidentally seems to have been a few ounces only, yet it undoubtedly led to the dangerous symptoms of narcotism. This is an important fact, and though merely bearing out the well-known experiments of Magendie to show the influence of a full or empty state of the blood-vessels in promoting or retarding absorption, is of great practical interest, especially as contrasting with the observation of Dr. Griffin as to the tolerance of opium in cases of "excessive pain or excessive hæmorrhage."

The view of the case taken by Sir Henry Marsh seems to be that the agonizing pain was caused by gall-stones. Mr. Stafford was not jaundiced, but jaundice is by no means a constant symptom of gall-stones. As to the question how far the narcotics contributed to the death of the patient Sir Henry says—

"I am of opinion that when I saw him he had recovered from the effects of the narcotic medicine, and, except so far as it debilitated him, it did not contribute to his death; unquestionably the narcotic medicine and the bleeding did debilitate him; I think the debility did contribute to his death, but I must add that if he had had a perfectly sound heart he would have recovered it all. I am of opinion that the weakness and debility of his heart was instrumental in causing his death; he had a fatty heart."

We have been assured that the fatty degeneration was *extreme*, and that the decomposition of the blood and tissues was such as is rarely witnessed except in cases of advanced fatty degeneration.

The only information we have as to the state of the kidneys after death is, that they "were somewhat larger than natural." Now, the general history of the case, the albumen in the urine, the suppression of urine, and the comatose symptoms, all look very like Bright's disease in an advanced stage; and it is a very curious question how far the comatose symptoms, during the last few days of life, and after all the immediate effects of the narcotics had disappeared, depended upon the state of the kidneys, and how far they were caused by the narcotics. Sir Henry Marsh says, "I have *known* opium produce *suppression* of urine." We should be glad to have some account of the case in which this was observed. It is well known that in diabetes opium checks the secretion of urine; but all our knowledge of the effects of opium in either medicinal or poisonous doses on man or animals, leads to the belief that it causes *retention* or *incontinence*, not *suppression* of urine. The kidneys continue to secrete, but the bladder either becomes unable to contract on its contents, and is found distended after death, or the sphincter of the bladder has been paralysed, and the urine has passed involuntarily. We know of no case on record in which *suppression* of urine has been clearly traced to the influence of opium, and we feel strongly inclined to attribute it in this case rather to kidney disease. It is quite clear that Mr. Stafford was narcotised to a dangerous extent by opium and hyoscyamus, but it is also clear that he recovered from the effect of the narcotics. Had he been a healthy man when they were administered he would have been alive now. But he had a fatty heart, and there is fair ground for presuming that he had also Bright's disease.

It is under these circumstances that the course pursued by Dr. Griffin must be weighed. He does not appear to have suspected that the heart was fatty. Indeed, in the state of pain and restlessness in which Mr. Stafford was, even if he had suspected it, he could not have satisfied himself on the point by examination. It is not clear that he attributed the excruciating pain to gall-stones. He may have suspected peritonitis from perforation. In either case he might give very large doses of opium. We have known a grain of opium given every half-hour for three hours, and then continued at longer intervals in a case of peritonitis, and the patient has done well. We have received an account of a very interesting case of this kind from Dr. W. Moore, of Dublin, which will appear next week. A physician to a London Hospital, we are informed, constantly gives a grain of opium every hour in cases of acute rheumatism until pain is relieved, and will thus give from 12 to 16 grains of opium in a day. We all know what large quantities of opium are given in delirium tremens. In plastic operations about the perinæum and genital organs of women, we have repeatedly given four grains, and occasionally six grains, of opium daily for a week, in order to keep up the state of constipation, and with good effect. So that remembering the earnest entreaties of the patient for opium, and that an uncertain quantity of the first three doses was vomited, we cannot see that Dr. Griffin is to blame for the quantity of narcotics he administered, while it is very clear that he is entitled to great praise for the energetic measures he used so perseveringly and so successfully when the patient had fallen into a state of dangerous narcotism after the accidental bleeding. No doubt the homœopathists and hydropathists will cite the case in triumph, and probably many of our readers will regret that the patient was bled so largely, and that chloroform was not used to allay the pain; but on these points we may ask them to suspend their judgment for a week, until we receive a fuller Medical report of the case from Dr. Griffin.

THE WEEK.

Another long debate at the Metropolitan Board of Works this week has led to the scheme of the Government Engineers being submitted to the Engineer of the Board and two other Engineers *for a report* thereon. It is high time that the carrying out of this great work should be taken from the hands of a Board which has shown itself utterly incapable of doing anything but talk. The necessity for immediate action is well illustrated by the following remarks from the last Weekly Return of the Board of Health:—

"From an examination of the analyses of Thames-water at Greenwich, made by the Officer of Health for Lambeth,

and regularly published in the 'Weekly Return,' it will be seen that on October 27 the results obtained exhibited a remarkable difference as compared with those of any previous week. On this day, for the first time since these analyses have been recorded, the Thames was found to contain more organic matter at low than at high-water, and this was probably dependent on the unusually abundant rainfall of the preceding week. The increase effected by the recent floods in the amount of organic matter present in the Thames at low-water appears to have been chiefly of that which is held in solution, while the dissolved mineral matter seems to have undergone a considerable decrease. In the high-water the dissolved mineral matter (consisting principally of sea-salt) was found to be diminished to less than one-twelfth the amount of the previous week. As the specimens of water analysed were not taken from the Thames until five days after the excessive fall of rain, it may be fairly inferred that a period of this duration does not suffice for effectually carrying off the large quantity of accumulated soluble filth flushed into the river by heavy rains.

"That the accumulation of soluble organic impurity thus discharged into the Thames is very large, and that it is almost exclusively derived from the sewage of the metropolis, the following facts exhibit in a striking manner. The water supplied by the Southwark and Vauxhall Company is drawn from the Thames about six miles above Teddington Lock; that supplied by the Lambeth Company is obtained at a point lower down the river, between Kingston and Thames Ditton. On Oct. 27, the amount of organic matter in a gallon of the water of the former company was 2·88 grs., in that of the latter 2·70 grs. On the same day at Greenwich each gallon of the Thames at low-water contained 6·04 grs. of organic matter. Consequently more than half the total amount of organic impurity in the Thames at Greenwich must have entered the river below the point from which the Lambeth Water Company derives its supply. And further, as this undue quantity was present at low-water, it must evidently have been poured into the river by the metropolitan sewers. When it is borne in mind that this was the condition of the Thames-water five days after a heavy fall of rain (amounting to no less than 3·04 in. in one week), a tolerably correct idea may be formed of the amount of filth which may be accumulated in London, awaiting an abundant rainfall to effect its discharge into the river.

"The mean temperature in London of the week ending last Saturday was 53·9°, which is 2·4° above that of the preceding week, and 8° above that of the corresponding week in former years. The average weekly thermometric range was 18·6°; the mean of the daily ranges was unusually small—only 8·9°. The mean barometric pressure was 29·817 in. The quantities of rain collected at the different metropolitan stations averaged ·68 in. The wind varied much in direction, but the north-east was most prevalent; its horizontal movement was small throughout the week. Traces of ozone were noted at Hackney on Tuesday, Wednesday, and Thursday; but at no other station could ozone be detected on any day of the week."

At the last examination for the degree of M.B. of the University of London all the candidates passed with but one exception. This was a gentleman known to be openly professing and practising homœopathy, and who is said to have given answers in his oral examination as to the doses of medicines which rendered it quite impossible for any examiner to allow him to appear before the public with a degree of the University of London. The case will probably lead to some discussion, but it is quite clear that a man who gives any medicines in doses of the decillionth of a grain, should not ape the title and honours of a Physician, but should rest content with the dignified character of Homœopathist.

A case of midwifery malpraxis in Hampshire of a very extraordinary nature calls for some remark. A Mr. Frederick Deane, whose name does not appear in the *Medical Directory*, was called one Sunday evening to a woman in labour. He remained with her all the next day, and until Tuesday morning. He returned again on Tuesday evening, and on Wednesday the head of a child was born. She was left without any assistance, and died undelivered on Thursday. Mr. Stedman, of Havant, and Mr. Barnard, of Fareham, made a *post-mortem* examination, and found "the head of the child protruded as far as the shoulders"—the pelvis of a natural size, and the child was delivered without the slightest difficulty. Such cases as this prove the absolute necessity for restricting the practice of midwifery to those who can at least prove their knowledge of the most simple rules they should carry out in cases of natural labour.

The Victoria Cross has been bestowed upon another member of our Profession. This is the official record of the act which so well merited the honour:—"Assistant-Surgeon William Henry Thomas Sylvester, 23rd Regiment; date of act of bravery, September 8, 1855. For going out on the 8th of September, 1855, under a heavy fire, in front of the fifth parallel, right attack, to a spot near the Redan, where Lieutenant and Adjutant Dyneley was lying mortally wounded, and for dressing his wounds in that dangerous and exposed situation. N.B. This officer was mentioned in General Sir James Simpson's despatch of the 18th of September, 1855, for his courage in going to the front, under a heavy fire, to assist the wounded." Honour to the brave!

Mr. West has forwarded the following statement regarding the meeting of the Council of Queen's College, Birmingham, at which his recent election to the Surgeoncy of the Hospital was declared "null and void."—

"That meeting took place on Friday last, the Rev. Chancellor Law in the chair, and the Professors assembled in full force. I sent in a letter, requesting that my solicitor and myself should be permitted to be present at the meeting; and, after waiting two hours, we were admitted.

"With what took place at the meeting up to that time I am of course unacquainted; but upon entering, the Chairman (in my hearing) admitted, in answer to a question to that effect from the Rev. Dr. Miller, that there was no prohibition of canvassing, either in the laws or bye-laws of the College, and that the subject was not alluded to in the advertisement.

"My Solicitor (Mr. Slaney) then rose, and in a brief speech suggested that as it was admitted that canvassing was declared not contrary to the laws, it was a mere waste of time to enter upon the consideration of allegations respecting canvassing, which, although denied by his client, could not, if proved, invalidate the election. He was interrupted at this point by Dr. Birt Davies, who intimated that Mr. Slaney was there to hear the evidence, but not to argue with them, and that the Council could interpret the laws for themselves, without his assistance. Finding that the Professors, who formed the majority of the meeting, were nevertheless determined to enter upon the allegations, and that Dr. Heslop, whose evidence consisted of mere hearsay, rose for the purpose of laying them before the meeting, Mr. Slaney at once stated that it was useless for him or myself to listen to these statements, as they were perfectly irrelevant, and that any vote which the Council might come to, founded on the proof of them, would be entirely disregarded by his client. The Rev. Dr. Miller then protested against any other business than that for which the meeting was summoned, viz., to consider the allegations, etc., being gone into, and the Chairman thereupon declared his intention of leaving the chair, if any other business were brought forward.

"Satisfied with this statement, and not believing for a moment that the gentlemen present could so far forget their duty to the public and the laws by which, as Members of the Council of Queen's College, their conduct should have been guided, the Rev. Dr. Miller, Mr. Welch, Mr. Slaney, and myself left the room. The subsequent proceedings of the Council I do not positively know, but their result was communicated to me by the Dean of the Faculty in the following letter:—

"The Queen's College, Birmingham, Nov. 13, 1857.

"Sir,—I am requested to inform you that the resolution of the Council of the 14th of October, appointing you a Surgeon

of the Queen's Hospital, was this day rescinded as null and void.

"I am, Sir, your obedient Servant,
"William Sands Cox, Dean of the Faculty.
"J. F. West, Esq."

Mr. West adds :—

"Being fully convinced of the illegality of the vote of the Council at their last meeting, I am determined to disregard it altogether."

The account of a meeting of Students at Birmingham will be found in another column.

A short extract will be found in another column, from a report by Dr. Scrive on the mortality of the French army in the Crimea. Those of our readers who are interested in the subject may refer to an editorial article in our number of June 14, 1856, in which they will find this subject treated at some length from materials obtained on the spot. The facts we there stated were thought incredible at the time, but they are fully borne out by the recent publications of Dr. Scrive and Dr. Bryce.

A preliminary meeting has been held, to consider the propriety of constituting a new Sydenham Society, with the object of republishing modern works and papers, especially those of a directly practical class. The Local Secretaries of the late Society have been applied to for their counsel and opinions in the matter. Among the supporters of the proposed new Society are many gentlemen who strenuously opposed the dissolution of the old; and the attendance of those interested in this matter is invited at Dr. A. Clarke's, 23, Montague-place, Russell-square, on Wednesday, 3rd December, at half-past seven p.m.

We have been favoured with the following remarks on the epidemic at Lisbon, from an official authority:—"The fever seems, on the whole, to be diminishing. It has confined itself almost exclusively to the parts of the town along the banks of the Tagus. When the town was in the most filthy state, as regarded the streets, it was more healthy than now, when the refuse is carried into sewers under ground. Formerly dogs and rats, etc., eat up much organic *débris* that lay about, and by other means it was gradually removed; but now it is said that what is carried into the sewers remains there, and although the town appears clean, yet the fœtid exhalations from the drains are most pestilential. The tides carry back the sludge and filth up the drains; and the formation of the drains is such that the refuse is not readily carried away. They are flat-bottomed sewers, and not tubular. One curious circumstance is also stated, namely, that the men who work in the gas works have hitherto all escaped the fever, although belonging to the population among whom the fever has most of all raged, and living many of them in the vilest purlieus of the place. The fever is believed to be the yellow form of paludal fever, and to have been imported from the Brazils." The *Times* correspondent at Lisbon says:—"The new cases from the 8th to the 17th were 1,877; deaths, 773, and cures, 1,275; against 2,063 new cases, 717 deaths, and 1,165 cures during the previous ten days up to the 8th, the result being a reduction of 186 in the new cases, and an increase of 56 deaths and 110 cures. The daily returns of new cases vary considerably. Those of the 14th, 15th, 16th, and 17th being 217, 157, 229, and 174. It is observed they are generally less in cold, clear days, and all anxiously hope for a continuous northerly breeze, which we generally have at this time of the year, to relieve us from the fever altogether."

The feelings of the Profession at Philadelphia have just been roused to indignation by the appointment of Dr. M'Clintock by the Guardians of the poor, a body of mere trading politicians, to the responsible office of chief Resident Physician at the Philadelphia Hospital, Blackley. Three or four years since this practitioner consented to furnish a trading company, for a consideration of some 5000 dollars, a series of secret recipes for "Family Medicines," which were advertised and hawked about the country in the usual style of similar nostrums. For this he was ignominiously expelled the American Medical Association. Dr. M'Clintock subsequently expressed his regret at what he had done, and published the recipes in a Medical journal—not, however, until the speculation had wholly failed, after 70,000 dollars had been sunk in bolstering it up. His unjustifiable appointment at the Blackley Hospital has been indignantly denounced, both by the College of Physicians and the Medical Society; and all but one of the Resident Physicians, together with the whole of the consulting Medical, Surgical, and Obstetrical Staff, have resigned.

The public of France seems to have a somewhat arbitrary mode of dealing with their doctors. The tribunal of Senlis has just condemned M. Robouam, a highly respectable practitioner, to a fine of 1500 francs for having refused to go to complete the delivery of a woman in labour when sent for. He declined on the score of serious ill health, and the woman's friends were aware he would not come before his presence was actually required. The woman died shortly after her delivery, and it was sought to prove that such death was due to his non-attendance. In truth, however, there was nothing abnormal about the labour except its being a twin case, nor did hæmorrhage occur. The woman on learning there was a second child became dreadfully agitated, in consequence of her poverty not enabling her even to clothe one child, and soon after expired, apparently in puerperal convulsions. The Medical Association of the department of the Seine, having M. Paul Dubois as its President, has protested strongly against the legality of the decision, showing that M. Robouam some time since suffered from hemiplegia, and since has been in delicate health: and an appeal has been lodged at the Imperial Court of Amiens. We have since learned that this tribunal has quashed the conviction.

A paper of unusual practical importance was read at th, Medico-Chirurgical Society on Tuesday. Dr. Garrod made known that caustic alkalies destroyed the narcotic alkaloids of belladonna, stramonium and hyoscyamus, and that even in the dilute form of ten minims of liquor potassæ to the ounce of water, the peculiar properties of henbane and the other narcotics are completely neutralized. Thus one of our most common prescriptions is shown to be a mistake. In the discussion Dr. Garrod announced the very important fact that animal charcoal is an efficient antidote for the three alkaloids above mentioned. A full report of the paper and debate will appear in our columns next week, as usual.

PROGRESS OF MEDICAL SCIENCE.

Selections from Foreign Journals.

ON THE RELATIONS OF ERYSIPELAS TO BRIGHT'S DISEASE.

By Professor IMBERT-GOURBEYRE.

1. Recollecting the frequency of the occurrence of dropsy in Bright's disease, we need not feel surprised at also meeting with erysipelas, which so often complicates œdemas that it

may in such case be justly termed *symptoma symptomatis*. In connexion with dropsy, this affection is sometimes developed spontaneously, and sometimes, so to say, traumatically, whether in consequence of a simple puncture or from the breaking of the distended skin. M. Rayer believes that, in the case of dropsy, the production of erysipelas or erythema is remarkably favoured by the phlogistic disposition which exhibits itself under so many forms in chronic albuminous nephritis; and he is confirmed in such opinion by having observed that these erysipelatous and phlegmonous inflammations are of far more frequent occurrence in the dropsies arising from nephritis, than in those which depend solely upon affections of the heart and large vessels. He maintains, moreover, that punctures and scarifications, which are so often useful in dropsy depending upon disease of the heart, are almost always mischievous (as, indeed, Blackall had already declared them to be) in dropsy consecutive to albuminous nephritis, when they induce inflammation of the skin. Erysipelas complicating dropsy especially affects the lower extremities, the labia, the scrotum, and the walls of the abdomen; and it is not unfrequently complicated with gangrene. Many cases of erysipelas are given in the works of Rayer, Bright, and others. In a total of 129 autopsies, M. Becquerel reports 2 cases of gangrene (one of the scrotum) and 3 of erysipelas; and among 65 cases, Malmsten gives 5 of erysipelas, 3 proving fatal. In two of Malmsten's cases the erysipelas appeared spontaneously in acute and fatal forms of Bright's disease; although the general opinion is, supported by M. Rayer's cases, that the erysipelas almost always is of traumatic origin, occurring only in chronic cases. Erysipelas, as a complication of albuminous dropsy, is almost a fatal occurrence; but that this is not always the case is shown by two instances of recovery, one of which occurred to M. Tardieu and the other to the author.

2. Besides erysipelas complicating the dropsies of Bright's disease, it may be directly symptomatic of the chronic and latent form of this disease, when it may play an important, and often a terminating part. These relations of erysipelas with Bright's disease may to some extent furnish an explanation of those bad forms of erysipelas which so often appear in chronic diseases, exercising a fatal influence over their issue.

3. The influence of erysipelas itself in inducing anasarca is an interesting fact. That is to say, this affection is sometimes observed to terminate in anasarca, a circumstance that has not been borne in mind in considering the relations of erysipelas to Bright's disease. Allusion is not here made to the œdematous swellings which erysipelas sometimes leaves behind it, especially when it has been recurrent, and which are known as œdematous erysipelas:—but to trace anasarca. The subject has scarcely been noticed by authors, notwithstanding the great attention paid since Bright's researches to the occurrence of anasarca after scarlatina, rubeola and variola. Professor Imbert-Gourbeyre adduces three examples; one of these is recorded as forming one of numerous instances of dropsy following an epidemic of erysipelas, which prevailed in Paris in 1707; the other is related by M. Abeille, and the third occurred to the author himself. Like the anasarca after scarlatina, that following erysipelas may or may not be complicated with albuminuria, the presence of albumen in the latter case being, however, the exception—recovery having in fact taken place in all the cases known.

4. Idiopathic erysipelas of the face is sometimes complicated by a fugacious, temporary albuminuria, which has been termed *critical*. M. Abeille seems first to have noted it, he having observed the occurrence of albuminuria in 7 out of 95 cases of erysipelas. Dr. Begbie has also published (a) an account of the ephemeral albuminuria met with in certain febrile affections. He states that he found albumen in the urine from the period of the commencement of the convalescence of erysipelas. The author has examined the urine in a great number of severe cases of idiopathic erysipelas of the face, and he has only very rarely been able to detect a slight and temporary albuminuria. But towards the decline of the disease, he has often met with the false albuminuria well known to observers, that is obtained with the acid which rapidly renders the urine turbid when it is strongly charged with urates—a false albuminuria, that rapidly disappears upon the application of heat. Like the critical albuminuria in question, it is very fugacious, seldom remaining longer than three days. Without denying that this critical albuminuria is really sometimes met with, he suspects that in other cases its exissence is due to the employment of the acid in place of heat.—*Gazette Méd.* Nos. 17, 18.

(a) Medical Times, June, 1852.

ON THE ABSORPTION OF MEDICINAL SUBSTANCES BY THE LARGE INTESTINE.

By M. BRIQUET.

The object of M. Briquet's two memoirs is the study of the absorption of medicinal substances introduced into the large intestine by means of clysters. The following are the general conclusions he has arrived at.

1. The fluid constituting the injection may easily reach as far as the cœcum, and consequently may be brought into contact with a very large extent of absorbing surface. 2. The mucous membrane and the fluids that bathe its surface do not exert any chemical action upon the substances so introduced into the large intestine, where all that is absorbed is that which was previously in a state of solution. 3. When a clyster of the soluble salts of quinine, in doses less than 15 grains, is administered, rather more than a third of the quantity so administered is eliminated, and has consequently been absorbed. 4. When larger doses are administered, they are ill-supported, and only a fifth or a sixth of the quantity is absorbed. 5. In whatever dose the quinine may have been given, it generally gives rise to cerebral symptoms only very slowly and to a slight degree. 6. Traces of elimination, and consequently of absorption are only met with an hour after the administration of a clyster, and even then the elimination is inconsiderable. 7. The duration of the elimination is usually short—two or three days at the utmost. 8. The greater or less dilution, within certain limits, the more or less viscous nature of the liquid, or the addition of the salts of morphia to the cinchona alkaloids do not exert any sensible modification on the absorption. 9. Absorption takes place more readily in the young than in the adult; and is performed with difficulty in the aged of either sex. 10. The salts of quinine, administered in clysters in doses of less than 15 grains, exert the same effect as when given in moderate doses by the mouth, and may be very well substituted for these. 11. But this is not the case with large doses, which are never absorbed in sufficient quantities to produce energetic effects. 12. The large intestine will rarely tolerate a larger dose than 30 grains of the sulphate. 13. These conclusions more or less exactly apply to the various substances administered by clysters. 14. The apyretic is notably more favourable to the absorption of medicinal substances than the pyretic condition. 15. The typhoid condition favours such absorption less than other states of phlegmasia. Nevertheless it is more energetic than hitherto supposed, being only about a tenth inferior to the absorption taking place in the pyretic condition. 16. In diabetes, the absorption of medicinal substances appears to be very feeble in the intestine. 17. In certain diseases, the tolerance or intolerance of medicinal substances may depend upon a special susceptibility rather than upon variations in absorption. Thus, in hysteria the tolerance of opium nowise depends upon an absence of absorption, but results from a special susceptibility. 18. The rapidity with which medicinal substances, such as the salts of quinine, are eliminated, is in a direct ratio with the quantity of urine passed. This rapidity is the exact measure of the time which the economy takes to rid itself of the greater part of fixed substances taken medicinally. 19. The absorption of medicinal substances, analogous to the salts of quinine is far more rapid in the young. 20. It is less active in females than in males, in the proportion of a sixth to an eighth. 21. Abstracting from a medicinal effect the portion due to the quantity of the substance absorbed, the remainder gives the measure of the susceptibility of being influenced by the medicinal substance.—*Bullétin de l'Acad.* tom. xxii. pp. 237, 1273.

ON AMYLOID DEGENERATION OF THE LIVER IN YELLOW FEVER.

By Professor SAMUEL JACKSON.

The existence of an amyloid substance was demonstrated by Virchow and Bennett to be the peculiar anatomical alteration of the liver, in many cases designated as waxy or fatty; and Professor Jackson some time since suggested that the peculiar appearance of the liver in yellow fever, supposed to be fatty degeneration, might possibly be owing to a similar modification. Professor Jones, of Savannah, has since then

examined several of these livers, and found that they contained a substance which gave reactions similar in all respects to cellulose, and presented under the microscope an appearance like the granules of starch. Dr. Jones also endeavoured to make gun-cotton from the yellow-fever liver, but without success. M. Pelouze has, however, since shown that the glucogenic matter of the liver can, under the influence of fuming nitric acid, be transformed into xyloidine like starch. M. Claude Bernard had already shown that sugar is not an immediate product of the liver derived from any element of the blood; but that it is constantly preceded by the creation of a special matter, capable of generating sugar by a sort of secondary fermentation. This glucogenic or sugar-forming matter, obtained separately, possesses all the characters of hydrated starch.

Assuming as correct the discovery of Bernard, the mechanism or process of the anatomical modification of the liver in yellow fever becomes apparent. The yellow-fever poison, introduced into the blood, vitiates its characters, properties, relations, and modes of action in the organism. All its functions are at first perverted, and ultimately, if the dose be powerful, are suspended or destroyed. The fermentative power of the blood being more or less impaired, and finally destroyed, the transformation of the amyloid substance into sugar is imperfect, or is not accomplished; the secretion of bile is at the same time arrested, and in consequence the amyloid element of the liver assumes an undue proportion in its structural composition. The peculiar character of the liver in yellow fever was first distinctly announced by M. Louis, as observed by him at Gibraltar. It has usually been supposed to be a form of fatty degeneration, though no regular and sustained chemical analysis, that I am aware of, ever demonstrated the fact.—*Amer. Journ. Med. Science*, Oct. p. 549.

EXCERPTA MINORA.

Case of Poisoning by Chloroform.—A private in a cavalry regiment in the United States swallowed nearly two ounces of chloroform. Seen ten or fifteen minutes after; he had already vomited, and was now found insensible, with stertorous breathing, and a pulse of about 60. The stomach-pump was employed, and some spt. ammon. afterwards thrown in. The pulse became more feeble; the breathing slower, and the pupils were insensible to light. Temporary improvement from the application of the cold douche to the head; and the surface becoming cold, he was well wrapped in blankets, a stimulating enema was administered, and mustard cataplasms were applied. For a time he kept getting worse, the face becoming purple, while the pulse was hardly discernible and intermittent. Two hours and a half after taking the poison, however, gradual improvement commenced, but sensibility did not return until four hours later. For several days he continued to suffer from great irritability of stomach, and eventually had an attack of jaundice.—*Amer. Journ. Med. Science*, Oct. p. 367.

Internal Administration of Vaccine Lymph in Small-pox.—Dr. Landell, a physician of Porte Allegre, Brazil, states that during epidemic visitations of the small-pox, from the year 1842 to the present time, he has had repeated opportunities of verifying the great advantage of administering the vaccine lymph internally. Dissolve the lymph contained on a pair of plates or a capillary tube, *i.e.* about four or six drops in four or six oz. of cold water, and give a tablespoonful every two or three hours. It mitigates the symptoms, modifies the species, and cures the disease. Beginning treatment on the second or third day of the eruption, the small-pox becomes converted into a state resembling varicella or varioloid; and when begun on the fourth or fifth day, the small-pox resembles true vaccinia, filling and drying in ten days, with suppuration. Under this treatment fever, delirium, and secondary fever disappear, and the author has not lost a case since he adopted it, these now amounting to more than thirty cases. Dr. Landell also adds that he has administered the lymph with great advantage in pertussis.—*Amer. Journ. of Med. Science*, Oct. p. 552.

Woman with Four Mammæ.—An example of this lately occurred at the Charity Hospital, New Orleans. The supplementary nipples were situated about two inches below the others. The patient had had seven children, and was accustomed to suckle from three of the nipples. All furnished milk equally well. Mr. Roberts, in *Amer. Journ. Med. Science*, Aug. 1828, p. 412, records two cases, a mother and daughter, in which each had three mammæ. In one the third mamma was in the groin, and served to suckle several children.—*Amer. Journ. Med. Science*, Oct. p. 561.

GENERAL CORRESPONDENCE.

OPHTHALMIC STATISTICS AND THE "OPHTHALMIC HOSPITAL REPORTS."

[To the Editor of the Medical Times and Gazette.]

Sir,—Many of your readers may remember that I commenced a series of Annual Reports on the progress of Ophthalmic Surgery ten years ago—each consisting of a retrospect of Ophthalmology derived from home and foreign sources, together with original cases and observations; they were also copiously illustrated with wood engravings. I regret to say they were discontinued after I resigned the editorship of the Dublin Quarterly Journal of Medical Science, in which they appeared. It is, therefore, with much pleasure that I hail the advent of the "Ophthalmic Hospital Reports and Journal of the Royal London Ophthalmic Hospital," for a copy of which I am indebted to the courtesy of the editor. Every one entrusted with the management of a large public institution, and much engaged in operating naturally turns, with anxiety to a record of the results of operations in establishments of a like nature; the comparison with which may lead to beneficial results both as respects science and the public in general. Now, the Moorfields Hospital has already achieved so much for Ophthalmic Surgery in Great Britain, and has at present attached to it operators of such acknowledged dexterity, that the results of their cases may be made public without detriment to themselves, the institution to which they are attached, or the science of which they are the ministers. It was with such feelings that, turning over the pages of the "Original Communications," of which I shall have the occasion to speak hereafter—I sought for the report of the operations performed for the quarter ending September, 1857, and which purports to "give the number of operations, the mode in which they were performed, and the *results* when ascertained." Now, nothing can be fairer than this, as respects the results of operations either in general or special practice.

The *chef d'œuvre* of ophthalmic, and indeed, I might say, of general surgery, is the extraction of cataract, although, as very many know, operative skill is but a comparatively small portion of the requisite qualities of a good ophthalmic practitioner. Relying upon the promise in the introductory passage of this report already quoted, I naturally expected to find the result of the extractions at Moorfields last year; so, turning to page 43, I there learned that there were 125 operations on the lens itself, in one of which "a central piece was taken out of the lens with the canula forceps." How that was effected, or what was the result thereof, is not stated. In another case the "lens enclosed in its capsule under the conjunctiva" was removed, but how it got into that locality is not stated. Passing by, however, these little deficiencies, we now come to the subject matter of this communication. We read that "extraction of cataract has been performed in 77 cases;" here then is an ample number of instances upon which to form an opinion as to the results of that operation in a particular establishment at a particular time; but in order to institute a fair comparison between 77 extractions performed in Vienna, Berlin, Prague, or even the Moorfields Hospital itself in former years, something more than the foregoing bald statement should be given.

We are unable to learn from the Report whether the 77 cases means persons or eyes; the ages are not stated, (which they might, at least in five-year periods, without any great statistical investigation;) we are left in the dark as regards the sexes; neither is there a word said respecting the constitutions of the patients or the characters of the cataracts. Perhaps it was considered sufficient information to tell the Profession, that 77 extractions were performed. I have just asked the gentleman who is transcribing this communication for me, what he means by an extraction? and his answer has been, "The removal of a hard lens in a person advanced in

life, through a section of the cornea after the laceration of the capsule, and by means of slight pressure exercised on the globe, either by its own muscles or the fingers of the operator." No doubt this is a very comprehensive answer; and it may be said to include nearly all the simple or uncomplicated extractions known to operators. Upon looking down the page and a half devoted to the explanation of these 77 cases, I find that 17 of them should properly have been excluded; viz., a case of hydrophthalmos of both eyes; 10 cases "in which the pupil was obstructed by products of inflammation," and in one of which we learn that "clear lenticular matter was scooped out;" while in another case the patient had "strumous deposits in both pupils, with adhesions of the iris;" but what such strumous deposits were, whether tuberculous, lymphy, or curdy, we are not informed. Other cases were closed pupils from the sequelæ of iritis; thus leaving, as far as I can learn without the assistance of a table, 60 cases of uncomplicated cataract to test these result of extraction. And what are we told of these results? "In two cases the corneal section had to be enlarged with a blunt pointed knife." Now taking into account the difficulty there often is in the hands of even the most dexterous operator to avoid making too small a section, and considering the variety of eyes and patients, one must meet with, I think that this is a remarkably small statistic of this accident. "In two the iris was wounded;" this I also look on as particularly fortunate; but the record is defective in not stating where or how the iris was wounded, or at what part of the first stage of the operation it occurred. In one, the wounded iris hindered the easy escape of the lens, in another the capsule was abnormally tough; and in five "there was an escape of the vitreous," but to what extent is not stated—a very great deficiency. Neither is it stated whether the vitreous was fluid in any of these instances. Here then is the entire result of the 60 operations, so far as their performance went; but as every operator well knows, the most hazardous process of all now commences, viz. that of inflammation and its consequences: we are not told how many eyes suppurated; in how many, iritis followed; whether any cases occurred in which the corneal section did not unite for an unusual length of time, or in how many the edges of the wound ulcerated; neither are we told in how many cases prolapsus of the iris happened, or in how many pupils there were false membranes, or opaque posterior capsules. Without information on such subjects as the foregoing, I am bound to say that the statistics of cataract operations are valueless to the Profession, although useful to the institution that affords relief to the persons so afflicted.

In like manner the reporter has dealt with the needle operations, seventeen of which were for congenital cataracts; but at what ages these cases were operated on (a subject of great importance to the Profession and the public) we have no information; neither are the sexes of the cases given nor their antecedents, such as hereditary predisposition, etc., nor how many operations were required for each.

There were fifty-four operations for "false membranes," but how many of these were the result of previous extractions is not stated. In compiling the statistics of St. Mark's Hospital, if there is occasion to laccrate or break up a false membrane after extraction before the patient leaves the Hospital, it is counted as part of the operation; but if the patient leaves the institution, and returns to have such an operation performed, it is numbered afresh.

There are many matters of practice set forth in the "Ophthalmic Hospital Reports" upon which I might descant, did your space and my time permit; but the foregoing observations will for the present suffice.

I am, &c. W. R. Wilde.

TARAXACUM A SUPPOSED SOURCE OF FALLACY IN TESTING FOR MORPHINE.

[To the Editor of the Medical Times and Gazette.]

Sir,—I have lately been informed that two letters, having titles somewhat like the above, were published in the *Medical Times and Gazette* for August and September last. The letters were communicated by Mr. Davey, of Romford, who has charged me with having confounded taraxacum with morphia; and Dr. Taylor has also alluded to the mistake, and commented on it in rather severe language in the last number of the *Guy's Hospital Reports*.

If Mr. Davey had written to me on the subject, a courtesy to which I think I was entitled, or if I had seen his letter in the *Medical Times and Gazette*, I should have set the matter right at once, by showing him that he had altogether misapprehended the facts of the case, and was reasoning on erroneous data. I was, however, in France at the time of its publication, and really knew nothing at all about it until I saw the remarks of Dr. Taylor in the *Guy's Hospital Reports* for the present month.

The general history of the case in dispute is this:—On the 24th of July last, the wife of a farmer residing at Dagenham, near Romford, died under somewhat peculiar circumstances. She had lost a child a few months before her death; and this had so preyed upon her mind as to make her very low-spirited. This had become a matter of deep anxiety to her husband and friends. The day before her death she went to Romford, and obtained a bottle of medicine from a druggist in the town. The medicine was composed of the extract of taraxacum, ether, nitric acid, and camphor mixture. Early on the morning of her death she took, as I understood, a dose of something from a bottle in the room where she slept, and soon afterwards her husband found her breathing very heavily. This excited his alarm, and, in endeavouring to raise her from the bed, she quietly expired. An inquest was held by Mr. Lewis, the coroner for Essex, on the 27th, and as the evidence given by her Medical attendant (Dr. Manley) did not account for her death, a post-mortem inquiry was ordered. This was conducted by Dr. Manley and Mr. Bowers, both of whom were agreed that the results of the examination were not sufficient to explain the cause of death. Accordingly, at the request of the coroner, the stomach and its contents were sent to me for analysis. The stomach was in a state of putrefaction, and it contained about half a table-spoonful of a thickish fluid, of a deep-red colour. This was carefully tested for opium and other poisons. It furnished a trace of what I thought was morphia; and, in answer to a series of questions from the coroner, I said the quantity might be about a tenth part of a grain, and this would represent about one grain of opium. My opinion at that time certainly was that the deceased had died from the effects of morphia; for it appeared that she was as well as usual the night before her death, and had eaten a hearty supper of bread and butter. She had also been seen to take something, which her husband thought was her physic, on the morning of her death; and she was deeply comatose a short time before she expired. Besides which there was no evidence of disease in the body, but there was a something in her stomach which gave the reaction of morphia. All these considerations led me to the conclusion that she had died from morphia; but I reserved my final opinion until I had seen the medicines and examined them.

These were given to me a few hours after I had attended the inquest. They consisted of two bottles, containing different kinds of mixtures, and there was also a box of pills. One of the bottles had an oval shape, and it contained a liquid of a pale sherry colour, having the odour of camphor and ether. It had a very acid reaction, 1000 grains of it requiring 2·4 grs. of anhydrous carbonate of soda to neutralize them. The acid was nitric acid. The specific gravity of the medicine was 1007; and when 1000 grains of it were distilled, they gave but traces of alcohol, with a little ether and camphor. The dry residue weighed 24·4 grains, and it had the appearance of a vegetable extract. This was further tested for meconic acid and morphia; but the results were negative, for it only furnished gum, sugar, a little resin, and a vegetable acid (catechuic), which gave a green colour with the persalts of iron. This, therefore, was the acid taraxacum mixture; and, as I said in my letter to the coroner, it contained no trace of morphia; in fact, it was not in any way confounded with it.

The other bottle was six-sided in its form. The contents had the colour of dark port-wine, and the odour was ethereal and camphoric. It had not an acid reaction, and its specific gravity was 1026. 1000 grains of it furnished 120 grains of alcohol (density 794), 92·2 of crystallized sulphate of magnesia, and 23·9 of a dark brown extract; besides which, it also gave a little ether and camphor. The properties of the extract were altogether different from the preceding; for the organic acid contained in it reddened the persalts of iron, and its resinoid constituent, which was very bitter, was made bright red by nitric acid, and it gave a greenish tint with

sesquichloride of iron. These are the characters of morphia, but it was not morphia; for I could not separate it in a crystalline form, and it was freely soluble in ether.

The pills were likewise examined, but they did not furnish any trace of morphia or meconic acid. Having therefore finished the inquiry, I wrote to the coroner in these words :— "I have just completed the examination of the two bottles of medicine and the box of pills, which were given to me last night by Police-Serjeant Stratford, and I do not find any trace of morphia or opium in either of them ; but I do find in the dark ethereal mixture contained in the six-sided bottle a peculiar resinoid body, which exhibits several of the reactions of morphia, and this I am disposed to think is the matter which I found in the stomach. Having it in larger quantity in the mixture, I can easily distinguish it from morphia, but where it occurred as a trace only in the contents of the stomach it is possible that it was mistaken for that poison. I am glad that I have made these examinations of the medicine, because the results will remove suspicion that might otherwise have attached to the case." This letter was submitted to the jury; and if Mr. Davey had read it properly he would have remarked that there were two bottles of medicine examined, and he ought to have communicated with me, to have ascertained the particulars of the matter before he entered upon a public controversy.

As to the remarks of Dr. Taylor I will merely say that they are founded upon an erroneous impression—made upon his mind by the letter of Mr. Davey; at the same time, however, I am free to admit that our modes of conducting such investigations as these are very different.

I am, &c. HY. LETHEBY.

8, King-street, Finsbury-square,
Nov. 24, 1857.

ON THE CASE OF CONGENITAL FISSURE OF THE STERNUM.

[To the Editor of the Medical Times and Gazette.)

SIR,—When I had the opportunity of examining the case of Eugene Groux, in the summer of 1855, I arrived at a conclusion respecting the cause of the pulsation seen and felt in the situation of the right auricle, which differed from the opinion which had been expressed on the case, so far as I am aware, and involved a point in the healthy action of the heart which was novel, so far as I know, though I may be mistaken. I recorded my conclusions in the book which M. Groux carries with him, and a little time afterwards sent a short communication to the *Lancet* on the subject.

I am very much gratified to find, from the *Medical Times and Gazette* of to-day, that Dr. Pavy has arrived at exactly the same conclusion as myself with regard to the cause of this pulsation, and I trust that it will not be unpleasant to Dr. Pavy to find that he and I are of the same opinion with regard to the cause of a phenomenon which exists, no doubt, in every healthy heart.

The following short passage from my communication will show that Dr. Pavy and I have given exactly the same explanation of the cause of the pulsation.

"When the ventricles contract, the portion of blood which is at their entrance is neeessarily driven back into the auricles before the closing auriculo-ventricular valves, and the moment the ventricles become relaxed, the blood in the auricles is drawn onward again into them. It is the wave of blood so driven back into the right auricle by the tricuspid valve, as it is closed by the contraction of the right ventricle, which causes the pulsation seen and felt in the situation of the right auricle in the case of M. Groux, while the relaxation of the ventricle causes the sudden subsidence of the tumour."—*Lancet*, July 7, 1855, p. 17.

It is with regard to the pulsation, or rising up of the tumour, that we are entirely agreed, while there is a little difference between our explanations of its subsidence. Dr. Pavy has illustrated his conclusions, and possibly arrived at them originally, by viviseetions on the dog, and he also makes some important remarks respecting the time when the auricles contract, a point on which I did not treat. I expressed the opinion, however, that "the filling of the tumonr caused by the right auricle seems to be exactly synchronous with the first sound of the heart."

I made a remark respecting the time of the impulse of the apex of the heart and the pulsation of the aorta, which was not quite correct, as I find after I have had an opportunity, kindly offered me by Dr. Scott Alison, of examining the ease with his sphygmoscope, but this slight error did not affect the main features of the case. I am, &c.

JOHN SNOW, M.D.

Sackville-street, November 21, 1857.

FORCED EXTENSION OF THE KNEE-JOINT.

[To the Editor of the Medical Times and Gazette.]

SIR,—Although the *Medieal Times and Gazette* arrives regularly at this remote station, yet it is sometimes delayed, and this delay must be my excuse for not noticing earlier some discussions upon Extension of the Knee-joint, which, though old to many of your readers, I have only just seen.

When you permitted me, in 1853, to describe in your columns the result of Professor Langenbeck's practice, I had only reported one fatal case among 150 which had been suecessfully operated upon. A large number of cases which I have seen or heard of since that period confirm in general all my statements on the subject; it is among other things with particular gratification that I can refer you to Jordan, the Nestor of the Manchester surgeons, who after taking the trouble to peruse my Latin dissertation, boldly introduced the operation into practice, and expresses himself highly satisfied with the results. It is, however, well to bear in mind that pyæmia may supervene after forced rupture.

In a letter addressed to Dr. Scheele, in Vienna, distintinguished for his contributions to this department of surgery, Dr. Friedberg of Berlin gives a very able account of two cases, where an unfortunate conplication occurred. In both of these cases, however, the fascia was thickened, and firmly connected with the subjacent parts ; in one slight fissures of the skin were caused during the operation, compelling the surgeon to desist from completing the extension ; in the second the skin remained intact, but its great tension and strong adhesion to the deep parts did not permit extension above 110 degrees. The intense and unmistakable pyæmia, however, terminated favourably in the first case, and by subsequent operations the contraction and false anchylosis of both knee and hip-joints were perfectly removed ; in the second death took place from obturation of the pulmonary artery by fibrine-plugs.

I therefore perfectly agree with Dr. Friedberg, that the caution (expressed already in my papers, although then not written in fear of pyæmia) must be more strongly urged, *i.e.* in cases of acute-articular contraction, with adhesion of the skin, occurring in cases of necrosis of the articular processes, and that the prevalence of pyæmia ought to contraindicate the performance of forced rupture under all circumstances.

I have not seen a more complete account than my own (Dissert. 11, 12) of the different forms under which contraction of the knee-joint presents itself. I have observed,

(*a*) Flexion with subluxation backwards.
(*b*) Flexion with abduction.
(*c*) Flexion with abduction and rotation of tibia outwards.
(*d*) Flexion with abduction, rotation outwards, and luxation outwards or backwards.
(*e*) First described by myself after a preparation in Langenbeck's Museum. Flexion with subluxation outwards, and backwards with abduction : in this the angle formed by tibia with femur was open backwards and inwards (page 13).

I hope a time will come when knee-joints contracted in any of these positions will be regarded as an opprobrium of surgieal art. Here also prevention is better than cure.

Let every knee-joint at the commencement of artieular disease be fixed in extension ; let it be extended under the the influenee of chloroform, if found contracted, at any period of inflammation, and the long series of pathological changes due to unequal tension of ligament to unequal pressure of articular surface with subsequent osseous absorption and dislocation dependent upon the change thus produced will be obviated.

The same applies to the hip-joint. What pain, suffering, and subsequent distortion would be spared if the dictates of patho-anatomy and patho-physiology were always attended to !

Bonnet, I think, has immortalized himself by first boldly xpressing these injunctions ; and the practice of Langenbeck

and Wagner, to which I venture to add the testimony of Jordan of Manchester and my own limited but distinct experience, bear out their value.

I am, &c.
P. Frank, M.D. M.R.C.S.
Assistant-Surgeon to the Forces.

Umhlati, Natal,
31st May, 1857.

[Some postal delay has retarded the appearance of this letter.—Ed.]

DISEASED LUNGS OF SHEEP.

[To the Editor of the Medical Times and Gazette.]

Sir,—At p. 515 in your Report of the Pathological Society, Dr. Ranke's communication is emphatically entitled, "A Form of Disease *now* very prevalent" in the Lungs of Sheep. May I refer Dr. Ranke to the British and Foreign Medico-Chirurgical Review for 1856, p. 49, where he may read an account, and p. 473, where I have given an engraving, of the same entozoic disease in the lungs of sheep? Dr. Ranke has found, of eighteen lungs examined, only two or three in a healthy state. For many years past, ever since indeed my attention was first directed to the subject, I have never seen one lung of a full-grown sheep entirely free from more or less of entozoic disease. The division between lamb and sheep being somewhat arbitrary, and this being an acquired and not a congenital disease, may explain the difference.

There is not the smallest reason to infer that such sheep produce mutton which *when cooked* is capable of introducing the germs of entozoa into the human stomach. But whether or not the lungs themselves would be certain to have all their communicable germs destroyed by the ordinary mode of cooking what the butchers sell to the lower classes as sheep's or lamb's "pluck," is perhaps more doubtful.

My object in writing this is merely to show that the title of Dr. Ranke's communication might be altered to that of "A Form of Disease, perhaps, universal in the Lungs of Sheep, which has existed for the last fifteen years, and probably for an indefinite period previously."

The mode of development of the entozoa is a subject of much interest, and I hope to read Dr. Ranke's account of it in full detail in the next volume of the Society's Reports.

I am, &c. C. Radcliffe Hall.

Torquay, Nov. 19, 1857.

THE MARSHALL-HALL TREATMENT OF APNŒA.

[To the Editor of the Medical Times and Gazette.]

Sir,—A correspondent, in a late number of the *Medical Times and Gazette*, suggests the employment of certain motions of the arms for inducing artificial respiration in the treatment of apnœa, as an improvement upon the natural method of the late Dr. Marshall Hall. He states that in practice it has been found to answer perfectly, and that it obviates some objections to which the Marshall-Hall method is open. I do not doubt the success of which your correspondent speaks, but I confess I should like to see recorded some cases in which a fair trial had been given to his movements.

I am quite aware that my late friend considered that very much remained to be done to develope fully his beautiful discovery; and, in speaking of this subject in connexion with his approaching death, he would occasionally say, with great feeling, "I am prepared to die, but I am not ready," alluding to the unfinished state in which he must leave this subject, the last of his discoveries—one which imparted to the fast closing period of his life a calm delight, in which those around him could not fail to rejoice.

I read the greater part of the correspondence that ensued between himself and Surgeons in all parts of the country, and I do not remember in any one instance that the objections urged by your correspondent were spoken of. Uniform success did *not* attend the adoption of his method, but, even where failure was met with, the general assent to the principle and the practice was most gratifying.

The advantage gained by the expiratory preceding the inspiratory movement is obvious, if reference be made to those passages in his work where the prone position is insisted upon. Were the operation reversed there would be a risk that the collected matter about the epiglottis and pharynx would find its way into the trachea together with the air; and might it not also be supposed that a certain amount of foul air would be present in the lungs, with which the pure air would be mingled in the first inspiration?

The rolling motions of the Marshall-Hall method *do* answer perfectly, and the chest *is* under the control of the operator; and I believe that I am correct in saying that the experiments performed by Mr. Hunter and other gentlemen at St. George's Hospital on the dead subject, proved that nearly as much air entered the lungs as would be inhaled in an ordinary inspiration in a state of health. Would not this show that both lungs were receiving air? But to obviate any doubt on this point Dr. M. Hall recommends the sides to be changed.

With ordinary care, unaided even, no injury need result to the neck, the chest, or to the features; but in the majority of cases assistance is at hand. I do not see how your correspondent's suggestions are to be carried out at all without aid, as I presume, for it is not stated, that the patient must be in the sitting posture to enable the operator to carry the hands "outwards, upwards, and backwards." Surely no one at the present time would think of recurring to the warm bath as an auxiliary during the existence of apnœa. In the after-treatment it is useful in restoring warmth, but positively injurious while apnœa is present.

I cannot see what advantages your correspondent would claim over the Marshall-Hall method by the three last paragraphs of his letter, for the very essence of the latter discovery consists in the prompt performance of the rotations on the spot, in the open air, the absence of any apparatus, and, above all, the process is entirely in harmony with nature.

I am, &c. Frederick Wildbore, F.R.C.S.L.

Brighton, November 13, 1857.

MEDICAL ETHICS AND PROCURED ABORTION.

[To the Editor of the Medical Times and Gazette.

Sir,—It appears that in consequence of your publication of a portion of my communication relative to the Tunbridge case of alleged procured abortion, two letters have appeared in your pages, one by an M.D., and the other from the pen of an LL.D. As both seem to have mistaken the object of my inquiry, as well as the history of the original case, allow me to carry back your readers to both. As I learn from your own pages, as well as those of your contemporaries and the local newspapers, where the trial was published in detail, it was alleged that a father and mother wanted to procure the abortion of their offspring, thus rendering themselves guilty of a legal as well as a moral offence. The Medical man consulted did not learn this in confidence; the woman who had aborted, and her married sister, came to his house, and assigned to the injuries received from instrumentally-procured abortion the impaired health for which she sought his advice. Thereon he made a statement to the Inspector of Police, who informs the party accused! who threatens an action, etc. etc. In such a case I asked for the opinions of the Profession respecting the course which the Medical man should pursue.

M.D., practising in the Co. Derry, is sent for in the course of his practice to attend a young unmarried woman, who had "profuse uterine hæmorrhage." Suspecting abortion, he says, "I endeavoured to ascertain whether such a supposition were true,"—from the messenger, no doubt!—but obtaned "no satisfactory information." The woman, however, "did not attempt to conceal from him the cause of her illness." She had aborted some hours previously, and had buried the fœtus (supposed to be in the third month), and threw herself on the mercy of the Doctor for secrecy. He kept the secret he had learned in confidence. This case, although involving questions of a moral and ethical nature, is, however, quite different from that at Tunbridge.

LL.D., like all lawyers, or legal doctors, with an eye to the main chance—a police investigation, coroner's inquest, committal, crown prosecutions, medico-legal evidence, trial, and its result, etc.—takes up the question in this day's number of your Journal, and indulges in some witticism on "Stony Stratford," which is quite thrown away on me, but which, if you, Sir, understand, you will please inform your readers in a note to this paper. His letter is, however, a distinct answer in favour of the conduct of Dr. Walker in the Tunbridge case,

He seems, in my opinion, rather hard on his countryman, the "Ingenious Hibernian," of the Co. Derry, and draws not very clear distinctions between "a promise of secrecy made beforehand," the infringement of which would equal the moral guilt of the concealment of the discovery, whatever it may be; and, to use the words of M.D., a case in which the patient implored the attendant "not to betray the confidence she had reposed in him." He also seems to think that "considerations of selfish interest, and the fear of losing patients and practice by a disclosure of such a discovery" as that made in Co. Derry by M.D., must "weigh heavily on the mind of every Medical man." I trust the failing is not general among the Profession. I am, &c.

Dublin. F.R.C.S.

DR. MARSHALL HALL'S "READY METHOD."

[To the Editor of the Medical Times and Gazette.]

Sir,—I have read with attention a letter addressed to you by a "Coadjutor in Dr. Marshall Hall's Experiments," and would beg to remind him that the subject is of deep practical and physiological interest, and that considerations of a purely personal nature should not stand in the way of scientific investigation; and while expressing the greatest respect for the name of our English physiologist, I am far from believing that no improvement can be made in the "Ready Method."

An appeal in these matters must always be made to experiment and observation. I therefore beg to send a case, by way of illustrating the principles and practice of the method which I venture to bring before the Profession.

On the 4th September, 1857, I was summoned to attend Mrs. E———, No. 2, Chapel-place, Wandsworth-road, at her confinement with her first child. I arrived at half-past three in the afternoon, and found the membranes broken, the os uteri dilated, and a breech presentation at half-past eight. The child was born apparently quite dead; no signs of respiration nor circulation could be discovered, and it was pronounced by the bystanders beyond recovery. The Marshall Hall method was immediately tried, but appeared to me open to some objections. Expiration could not be excited by compression of the chest, because the child's lungs never having contained air were quite collapsed; and there was so little elasticity of the tissues that some more active mechanical aid was obviously required to induce inspiration.

Moreover, from the weight of the head, the flexibility of the neck, and the lifeless state of the infant, it was difficult to keep the mouth and nose in such a position as to admit air; at the same time the face was liable to be injured, and the neck twisted by the frequent turning.

Only one side of the thorax could be operated on at the same time.

Instead of giving up the case as hopeless, I began to consider whether nature had not provided the chest with handles, by which it might be opened and closed at the will of the operator; and placing the infant on its back on a small pillow, I drew the arms of the child up by the side of the head, and extended them outwards, upwards, and backwards, in such a way as not only to raise the shoulders, but to put the pectorals on the stretch, elevate the ribs, and open the chest. Expiration was produced by pressing the shoulders down upon the thorax. The breathing was soon established. As it was difficult to maintain the temperature of the infant, it was placed in a warm bath, with its back resting upon the hand of the nurse, and the process adopted with quite as much facility as before. These efforts were made alternately fifteen times in a minute. I am, &c.

Henry R. Silvester, B.A., M.D. Lond.

High-street, Clapham.

ARSENICAL POISONING.

[To the Editor of the Medical Times and Gazette.]

Sir,—If you think the following case sufficiently interesting, perhaps you will be kind enough to find a corner for it in your valuable Journal:—

S. S., aged 17, about 8 a.m. on November 10, went to a druggist's shop to purchase some arsenic to kill rats; the assistant told her that the law prevented him from selling her arsenic without a witness, but he could let her have something that would answer better, viz. "Battle's vermin-killer." She bought a packet containing about one drachm (the packet was afterwards found in her pocket quite empty), went home, was seen to take up a cup and go into the tap-room, come back with it, and drain it down the sink; she afterwards proceeded with the preparation of the breakfast, and, after partaking of a little, went into the yard, returned in a few minutes, but almost immediately threw up her arms, shaking them violently, and fell off the chair on the floor. When I saw her about ten minutes after the attack, and about half-an-hour after taking the poison, she was laid on her stomach, violently convulsed with tetanic spasms. Did not make any noise; perfectly unconscious; head bent back; arms doubled under her; hands clenched; spine curved; legs and feet extended and rigid. On turning her over I perceived a little froth at the mouth, and a little milk running out, which some one had attempted to get her to swallow. Her jaws were firmly fixed; lips a little retracted; face, neck, and arms suffused; eyes staring, pupils dilated. Scarcely any interval between the convulsions, being unable to get anything into her mouth. Chloroform was administered, but she had not inhaled above once or twice when she appeared to die asphyxiated from spasms of the chest, about one hour after taking the poison. Dr. Hall's "Ready method" was tried for some time, but without any effect. Immediately after death the body became quite flaccid; rigidity came on in about two hours.

Post-mortem, twenty-seven hours after death.—Body quite rigid; all the joints stiff; fingers a little curved, nails blue; brain and its membranes very much congested; a large quantity of dark fluid blood escaped from the sinuses. No serum in ventricles; lungs, liver, and kidneys congested; heart fluid and empty; about two ounces of serum in pericardium; stomach distended, contained about one ounce of thick grey fluid; a large red patch was seen at the posterior part of the cardiac end; uterus contained a little thick mucus; inside the os much congested; had menstruated the week before.

The only test used was about an ounce of the contents of the stomach given to a half-grown cat, which took effect in about half-an-hour; was violently convulsed, but more so when made to move about; it quite recovered in about three hours. I am, &c.

W. Saville, M.R.C.S., L.A.C.
House-Surgeon to the Rotherham
November 17. Dispensary.

THE LATE ELECTION AT QUEEN'S HOSPITAL, BIRMINGHAM.

[To the Editor of the Medical Times and Gazette.]

The Students of Queen's College beg to bring under the notice of the Editor the enclosed Memorial addressed by them to the College authorities, and trust he will kindly insert it in his valuable Journal.

Queen's College, Birmingham,
Nov. 19th, 1857.

To the Principal and Council of Queen's College, and to the Governors of the Queen's Hospital, Birmingham.

My Lords and Gentlemen,—We the undersigned Students of Queen's College and Hospital, have noticed with surprise and regret the proceedings in connexion with the Surgeoncy of that Institution. We hailed with much satisfaction the appointment of Mr. West to the office of Surgeon, as successor to Mr. G. B. Knowles, feeling convinced, from our knowledge of his professional attainments and honourable character, that he would discharge the duties of his appointment with a view to our advancement and the welfare of the patients committed to his care. It is, therefore, with deep regret that we have noticed the attempt made to disturb the deliberate choice of the Council, with whom Mr. West's election rested, and to dispossess him of an office to which he has been duly elected. Satisfied, however, that the Council and Governors have only one object in view—that of maintaining the honour and efficiency of the noble Institutions with which they are associated—we most respectfully and earnestly beg that they will take immediate steps to rectify the anomaly of having two gentlemen assuming the functions of Surgeon, as they must be aware that a continuance of the present state of things cannot fail to prove detrimental in the highest degree to the harmony which should subsist amongst the Medical Officers, to the respect which it is our duty at all times to feel towards them, to the due prosecution of our

studies, and last, though not least, to the great and sacred interests entrusted to their care :—

John Alderson, Warneford Scholar, George W. Mould, Warneford Scholar and Medallist, Edmund Lynch, Warneford Scholar, G. H. Harris, Warneford Scholar, Walter Abbey, Warneford Seholar; Henry Nichol, John H. Freer, Frederick Dunn, R. S. Wallis, John Wilders, Douglas Ward, Robert Bath, George E. Hyde, Charles J. Bracey, Charles H. Porter, R. M. Bowstead, T. W. Bullock, John Nicholson, William White, Frederick Kempson, William Thelwall, Thomas Jones, J. B. Bromley, Thomas H. Bartlett, George G. Tandy, John H. Hughes, F. R. Bradley, Frederick Turton, John P. Gradwell, R. H. Wolsley, R. Macpherson, Arthur Overton, Harri T. Parri, Walter Jones, John Brown, R. H. Herbert, Thomas Finch, Joseph T. Cope, Edgar Wigley, H. T. Marsh, Thomas J. Smith, Theodore Hubert, J. H. M. Ballenden.

At a General Meeting held at Queen's College, Tuesday, Nov. 17th, at which the whole of the Medical Students were present, the above Declaratiton was fully diseussed in the presence of Mr. Gamgee, when the Meeting came to the conclusion (only five gentlemen dissenting,) that Mr. West was duly elected Surgeon of the Queen's Hospital, and that, in the present state of things, they should feel it to be their duty to regard him as such.

REPORTS OF SOCIETIES.

THE PATHOLOGICAL SOCIETY.

Tuesday, Nov. 17.

Dr. Watson, President, in the ehair.

Dr. Williams brought before the attention of the Soeiety the subject of a

CONGENITAL DEFICIENCY OF THE STERNUM.

This case is the same which has been frequently mentioned in the English and continental journals during the last few years. (See a description and wood-cut in our last week's journal.) The subject of it is a slimly made man, aged 24. The whole length of the sternum is deficient, a cartilaginous bridge at its lower part alone uniting the two halves. During deep expiration the fissure is almost obliterated, but after full inspiration, and especially during coughing, the distance between the two parts becomes as wide as the palm of the hand. In the upper third of this the pulsation of a soft body may be distinctly felt and seen, and most observers, including Dr. Williams, hold this to be undoubtedly the right auricle of the heart. During violent inspiration a large mass of lung may be forced out in the upper part, distending the skin into a soft elastic prominence, and furnishing a clear percussion note. After giving a very lueid deseription of these and other peculiar features of the case, Dr. Williams adverted to three disputed points respecting the mechanism of the heart's sounds, which he thought might here be set at rest.

1. That the auricular motion was attended by a peeuliar sound of its own—a sharp note of very short duration.

2. That the natural seeond sound is a double one. This reduplication he believed to be caused by the tension of the two sets of semilunar valves not being exactly synchronous. On tracing the aorta downwards by the stethoscope, but one sound was heard until reaching the position of the semilunars, where the reduplicated click became at once audible.

3. That there appeared to be a certain sound audible in the right carotid, which was due to some obstruction in that vessel itself.

Mr. Henry asked if Dr. Williams was aware that Dr. Sibson believed that the part seen to pulsate was the aorta, and not the auricle.

Dr. Quain stated that he, in eonjunction with some others, had examined the man's ehest very carefully, and had come to a eonclusion in whieh they felt no doubt that Dr. Williams' explanation was really eorrect.

Dr. Williams said that on the Continent some differenee of opinion on this point had been entertained. The balance of authority was, however, very deeidedly in support of the view that the exposed part was really the auriele. The man had brought over with him a large "Album" of written opinions by foreign professors, which, however, were more nearly unanimous in support of the adage, *tot homines tot sententiæ*, than of any thing else.

Dr. Barclay exhibited a specimen of

OIL FROM THE PLEURA.

This case was believed to be unique. He had not himself been present at the autopsy.

A medical man, aged 58, had been found dead, having been as well as usual a few hours before. He had suffered from slight cough and dyspnœa for some time, and had for long been very apprehensive of sudden death. He was stout and of active habits. At the time of the autopsy the cellular tissue was extensively infiltrated with serum. Decomposition was very rapidly progressing. Oil ran freely from the section of the cellular tissue of the abdomen. On opening the pleura about five or six ounces of oil escaped in a sort of jet. The pleura was generally adherent, and the oil occupied the spaces between the adhesions. In the right pleura was no oil. The surface of the intestines generally was oily. The liver was almost gangerous. The body was comparatively bloodless.

Dr. Tuke asked whether any trials of the inflammability of the oil had been made, and suggested that the case might be one which would have ended in spontaneous combustion.

Dr. Barclay said the same idea had entered his mind.

Dr. Bristowe felt much inclined to think that the oil was a mere product of decomposition, and had run into the cavities where it was found from the subcutaneous adipose tissue. He was at a loss to understand how small a quantity could have been ejected from the pleural sac in a jet, and suggested that the jet noticed when the pleura was opened must have been air, perhaps, carrying some oil before it.

Dr. Brinton supported Dr. Bristowe's view, and was quite incredulous as to the circumstance of the oil having originally existed within the pleural and peritoneal sacs. He had certainly hoped never to hear the subject of spontaneous combustion mentioned before such a Society, since the idea had long been abandoned by all medical jurists worth the name. The tension force of decomposition was very great, and might easily be supposed capable of squeezing out fluid oil into the subserous tissue.

Dr. Bence Jones agreed with the last speakers and discredited the observation of the gentleman who had made the autopsy.

Mr. Bryant exhibited a specimen of

FIBRO-PLASTIC TUMOUR.

A man was admitted into Guy's Hospital with a tumour in the calf of the right leg, of a year's growth. The tumour was almost sloughing. Amputation was performed, and death from pyæmia followed. A grooved needle had been forced into it on the first occasion of its being seen, and the elements of a fibro-cellular growth were then found. This observation was confirmed by the examination of the growth after removal.

Dr. Harley brought before the Society

RATS FROM WHICH THE SUPRA-RENAL CAPSULES HAD BEEN REMOVED.

From one living one, which appeared still to be in fair health, active and lively, both supra-renal capsules had been removed at the age of one month, and the spleen two months later. It was now more than four months old. It was a white rat, and no change in colour or loss of hair had been noticed. To prove that the capsules had really been removed, Dr. Harley stated that at the preceding meeting he had brought down one operated on at the same date, which he had killed just before in order to have it examined before the Society. The press of specimens had, however, prevented its then being shown, and decomposition was now too much advanced. A third rat (dead) was shown in which one capsule had been extirpated six weeks ago, and the other a fortnight ago. It had seemed quite well until the night of its death, and he had no doubt that it had been killed by its companion.

Mr. Hutchinson hoped that Dr. Harley would not consider him wilfully captious, but really he could see no proof that the last-mentioned rat had not died in consequence of the loss of its capsules. With regard to the one still living three months after the operation, the fact was a most valuable one. Still it must not be held to prove more than it really did.

Those who in opposition to Dr. Harley's views held that the capsules were vital organs, admitted that they might be done without for a long period before death ensued. There was every reason to believe that a typical and marked degree of bronzing of the skin was a symptom rarely present until the supra-renal capsules were totally destroyed, and yet there were several instance of life being prolonged for two years or more after this. It was quite possible, then, that a period of three months did not bear a greater proportion to the average life of a rat than did two years to that of a human being.

Dr. Van der Byl showed an

URINARY CALCULUS ADHERING TO THE BLADDER.

A woman had died in the Middlesex Hospital of cancer of the uterus of two years' duration. She had been confined to bed for nine months before death. No urinary symptoms had been noted during life. The calculus was small, and of a scale-like form. The mucous membrane of the bladder was ulcerated at the spot where the calculus adhered.

Dr. Balding showed a specimen of

URINE CONTAINING CYSTINE.

It had been passed by a Medical student who was engaged at the time in hard reading for an examination. The amount of cystine present appeared to have borne pretty exact proportion to the degree of intellectual labour undergone at the time.

Dr. Van der Byl mentioned the case of a gentleman who habitually passed cystine, but in whom the quantity always increased when he took violent exercise. In him mental exertion did not appear much to influence the amount. Some experiments, with a view to test the influence of the cystine in preventing the decomposition of other salts, had been tried in this case. He had induced several individuals to take large quantities of rhubarb, which was well known to cause the excretion of oxalate of lime. In the individual who was liable to the cystine deposit no oxalate appeared, whilst in the others it was plentiful.

Dr. Bence Jones stated that these cases being rare, and the subjects in each of those mentioned being Medical men, he much hoped that the opportunity for ascertaining the influence of different ingesta upon the amount of cystine excreted would be made use of. Such knowledge was much wanted.

Dr. Brinton showed a specimen of

PERFORATING ULCER OF INTESTINE IN TYPHUS FEVER.

The most interesting feature in the case was, that the symptoms had been absent until within the last day or two of life.

Dr. Brinton also showed

A DISEASED HEART.

The gentleman from whom it had been removed had died after about a fortnight's illness, having been in good health previously. His fatal symptoms were failure of the heart's action, and anasarca. Extensive and old-standing disease of the aortic valves was found. The interesting feature in the case was that this disease had for so long been in abeyance.

Dr. Brinton brought forward a third specimen, which showed

CANCEROUS ULCER OF THE STOMACH.

The important feature in this case was that there had been well-marked symptoms of simple ulcer of the stomach for several years, and aggravated dyspepsia for twenty-three years, and that it therefore seemed probable that the cancerous infiltration had been secondary. It had most likely only taken place within a few months of death. The circumstances supporting this conclusion were lucidly stated.

Mr. Adams showed the bone from a case of

FRACTURE OF THE FEMUR INTO THE KNEE-JOINT.

The specimen, a dried bone, showed the shaft of the femur thrown forwards, and united by its posterior surface to the front aspect of the condyles. The originally fractured surfaces were nowhere nearer together than at half an inch distance, and the union was by strong osseous buttresses. Mr. Adams believed that there were evidences of the fracture being extended through the condyles longitudinally into the knee-joint, but respecting this some who examined it afterwards were very doubtful. The gentleman from whose body it had been obtained had sustained the injury twenty years before death, and had been treated by Mr. Liston, who had suspected, in addition to the fracture of the femur, one of the patella also. The straight splint had been employed, and in the tilting backwards of the condyles the exact accident so liable to happen when using that splint had occurred. The gentleman had, nevertheless, enjoyed good motion in the joint.

Mr. Bryant showed a preparation of

NECROSED BONE FROM THE LOWER JAW.

It had been removed from a man the subject of syphilis, but who had neither received any injury, nor been exposed to phosphorous fumes. It was chiefly noteworthy on account of its size, including the whole front part of the bone, and both mental foramina.

Dr. Gibb related the particulars of a case of

DOUBLE SUB-PERICRANIAL CEPHALHÆMATOMA,

which was brought to him in June last. The mother, aged 30, a healthy woman, was delivered of her third child on the 4th of June, after being in labour a quarter of an hour, without any assistance of any kind. The child had two tumours at the top of the head, and when seen by him possessed a soft, elastic, and somewhat fluctuating character; one was situated on each side of the top of the head. That on the left was the largest, and fully the size of a hen's egg. They did not communicate, and pressure produced no effect on the child, who took the breast well, and was in every respect healthy. These tumours were of the same dimensions as at birth, and were found to be completely encircled, apparently by an osseous ridge, which seemed elevated, with the tumour, as it were, lying in a sort of depression in the bone. These tumours were carefully watched, and found not to increase in size. On the 3rd of July they were a little softer; a few days later that on the right side of the head became smaller, and on the 13th entirely disappeared without the slightest trace of it remaining to show its former situation. By this time the left tumour was smaller, nearly solid, and with indistinct fluctuation. Three weeks later it also had disappeared. The disappearance of these tumours was spontaneous, and no treatment was adopted. The first was completely absorbed in thirty-nine days, and the second in fifty days.

UNIVERSITY OF LONDON.

M.B. SECOND EXAMINATION.—1857.

PASS EXAMINATION.

Monday, November 2.—Morning 10 to 1.

PHYSIOLOGY.

Examiner, Professor Huxley.

*** Candidates are required to answer any three of the following questions accurately and fully.

1. Describe the ultimate structure of the human lung; explain the mechanism of inspiration and expiration; and give an account of the physical process by which the exchange of gaseous constituents between the blood and the atmosphere is effected.

2. What is the structure of the different kinds of contractile tissue? State the arguments for and against the existence of a *vis insita*, or inherent contractile power in muscle.

3. Describe the structure of the human ovary and ovum, and give an account of the process of menstruation.

4. Give an account of the process of ossification, and describe the structure of fully-formed bone.

5. Describe the larynx, and explain the mode in which the voice is produced.

6. What is the structure of the human hair, and how is it developed?

Monday, November 2.—Afternoon, 3 to 6.

GENERAL PATHOLOGY—GENERAL THERAPEUTICS HYGIENE.

Examiners, Dr. Billing and Dr. Tweedie.

1. Give an outline of the views entertained as to the origin and nature of tubercular deposits. Describe the physical characters of the deposit, and the changes it undergoes, in the pulmonary tissue.

2. Explain the principles on which the treatment of inflammation should be conducted. In detailing the several remedies, give the results of your experience, and the conclusions you may have formed as to their value.

3. Describe the sources of lead poisoning and its effects on the human body. Should the water-supply be suspected, by what mode of analysis is this to be detected?

TUESDAY, November 3.—Morning, 10 to 1.

SURGERY.

Examiners, Sir STEPHEN HAMMICK and Professor FERGUSSON.

1. A gentleman about 70 years of age is knocked down by a cab, and on being raised from the ground, says, "I am grievously hurt, and am suffering acute pain all about my right hip:" it was observed that he could not move the lower extremity, which was shortened and in an unnatural position; he is placed on a stretcher and conveyed to his home, shortly after which you visit him: state what you consider is the nature of the injury, giving a minute description of the symptoms and appearances of the limb, as a justification of the opinion you have formed: then sketch out your intended mode of treatment, with the probable result of the case.

2. Classify the different kinds of wounds which may arise from accidents, or any other violent cause; describe the treatment you would direct, both locally and generally, of each variety; trace the progress and stages of a case of extensive muscular laceration in the lumbar region where you apprehend danger from the first.

3. What is empyema? What are the injuries or diseases which may produce it? What are the symptoms by which you detect it; and if the operation of paracentesis thoracis is required, describe at what period, and under what circumstances you would have recourse to it; give the method of performing the operation, with the subsequent management of the patient.

TUESDAY, November 3.—Afternoon, 3 to 6.

MEDICINE.

Examiners, Dr. BILLING and Dr. TWEEDIE.

1. Explain the nature of cirrhosis. Sketch its anatomical characters and results.

2. Describe the symptoms, complications and treatment of acute rheumatism.

3. Describe the general phenomena of hæmorrhage from the stomach, and the sources from which the blood may escape. How should it be treated?

4. Sketch the treatment of apoplexy. Describe the conditions of the brain in fatal cases.

5. Give the anatomical characters and physical signs of pulmonary emphysema. How is it induced?

6. Describe the diagnostic characters and varieties of (*a*) acne, (*b*) ecthyma, (*c*) herpes respectively. Sketch the treatment of each.

WEDNESDAY, November 4.—Morning, 10 to 1.

MIDWIFERY.

Examiner, Dr. RIGBY.

1. In threatened abortion, which is the most formidable symptom, discharge or pain? Give your reasons.

2. In what period of pregnancy is rupture of the membranes a proper and useful measure for checking hæmorrhage?

3. In a protracted labour, when there is a head presentation, and no misproportion between the mother and child, what are the circumstances which will justify your having recourse to artificial assistanec?

4. Describe the different species of puerperal convulsions, and their treatment.

WEDNESDAY, November 4.—Afternoon, 3 to 6.

FORENSIC MEDICINE.

Examiners, Professor BRANDE, Dr. OWEN REES, and Dr. RIGBY.

By Professor Brande—

1. In a case in which a person has died from the joint effects of arsenic and of antimony, describe the processes by which you would search for these metals in the liver.

2. In a case of poisoning by phosphorus, how would you detect its presence in the contents of the stomach? Can phosphorus be detected in the tissues?

By Dr. Rees—

3. Give instances of poisons which destroy life,—

1st. By the heart. 2ndly. By the lungs. 3rdly. By the brain.

Describe the post-mortem appearances characteristic of each form of death.

By Dr. Rigby—

4. If a medical man, conversant with midwifery practice, intentionally brought on abortion, what are the means he would probably use, and what effects of such treatment would be capable of being detected some months afterwards?

5. Enumerate the local changes and injuries indicating that rape has been committed.

EXAMINATION FOR HONOURS.

TUESDAY, November 17.—Morning, 10 to 1.

Examiner, Professor HUXLEY.

PHYSIOLOGY AND COMPARATIVE ANATOMY.

Candidates are required to answer one of the first two questions and one of the last two.

1. Why do the eyes of cats shine in comparative darkness? State what becomes of a ray of light which enters the human eye, and explain the principle of the ophthalmoscope. In what way is it possible to see the retinal vessels and the macula lutea in one's own eye? What appearances do they present? Why is it probable that the 'columnar layer' is the immediate recipient of luminous impressions? What are the conditions of single vision with two eyes, and of double vision with one eye?

2. Describe the structure of the heart. What are the conditions upon which the rhythmical movements of the heart depend? What experiments help us to understand the influence of "shock"?

3. In what respects do the *Vertebrata*, *Mollusca*, and *Articulata* differ from, and agree with, one another in structure and development?

4. How is the function of respiration performed in the lobster, the snail, the whelk, and the oyster? State the classes and orders to which each of these animals belong.

TUESDAY, November 17.—Afternoon, 3 to 6.

PHYSIOLOGY AND COMPARATIVE ANATOMY.

Examiner, Professor HUXLEY.

Candidates are required to answer one of the first two and one of the last two questions.

1. Describe the stomach of a ruminant, and explain the mechanism of rumination. What *Mammalia* besides the *Ruminantia* possess a complex stomach?

2. Give an account of the principal modifications of the urinary apparatus in the animal kingdom.

3. Describe the structure and offices of the Wolffian bodies; and explain their relations to the genital organs.

4. Describe the leading features in the development of the vertebrate embryo, explaining the mode of origin of the umbilical vesicle, the amnion, the allantois, and the placenta. What are the "primitive groove" and the "chorda dorsalis," and by what embryological states are spina bifida and hare-lip explicable?

WEDNESDAY, November 18.—Morning, 10 to 1.

SURGERY.

Examiners, Sir STEPHEN HAMMICK and Professor FERGUSSON.

1. A man is thrown from his horse, and while on the ground is kicked, producing extensive laceration of the common integuments on the right side with a fracture of the third, fourth, and fifth ribs near the angles; portions of the fractured parts are driven into the chest; bloody serum, mixed with air, flows freely by the wound, and arterial coloured blood is coughed up: describe the treatment you would pursue, and follow the case up, step by step, through its various stages, guided by the symptoms which are likely to arise from such an injury; and if death takes place, early or late, give the appearances you would expect to find in the cavity of the thorax by a post-mortem examination.

2. How would you define an aneurism? Give the names by which aneurisms are distinguished, according to their formation, situation, or any other peculiarity, whether they arise from wounds, accidents, or natural causes; describe the symptoms and appearances of such aneurisms as would fall under surgical treatment; and enumerate such tumours, or diseased appearances, which have been occasionally mistaken for aneurisms, and how such mistakes are to be avoided: trace the course of the femoral artery, after it has given off the profunda femoris till its arrival in the ham: you will state the treatment you would adopt, in the various changes of a popliteal aneurism, up to the time when you have decided on the necessity of an operation, the mode of performing which you are to detail: give the subsequent management of the case under favourable or unfavourable symptoms.

WEDNESDAY, November 18.—Afternoon, 3 to 6.

SURGERY.

Examiners, Sir STEPHEN HAMMICK and Professor FERGUSSON.

1. What is tetanus? How would you know it? What are the most frequent causes of tetanus? Describe the names which are given to the different positions into which the head or body may be drawn by the spasms peculiar to this disease: are there any climates, constitutions, or ages of persons in which locked-jaw is most prevalent? Are there any premonitory symptoms, or any stages or appearances of the wound, any peculiarity of the countenance, or any sensations felt by the patient short of spasm, by which you would fear the approach of tetanus, whether of an acute or more lingering nature? Describe the treatment you would advise under the mildest and most aggravated attack of traumatic tetanus; and should any case of locked-jaw have fallen under your observation, sketch out your notes thereon.

2. A man of middle age and strong health, having just fallen from a scaffold several feet in height, has received an extensive lacerated wound on the left side of the head, attended with a fracture and depression of the lower portion of the parietal and upper part of the temporal bone: there is also hæmorrhage from the ear, bloody spits by the mouth, coma, and insensibility; should you at an early or any subsequent period determine on the use of the trephine, you will give fully the symptoms and condition of the patient as a justification for your decision; describe the method of performing the operation with the treatment of the patient, both anteriorly and posteriorly to the operation, through the various stages as they arise, up to a favourable or fatal issue.

THURSDAY, November 19.—Morning, 10 to 1.

MEDICINE.

Examiners, Dr. BILLING and Dr. TWEEDIE.

1. Describe the forms, anatomical characters, and diagnostic symptoms of carcinoma of the stomach.

2. Give an outline of the opinions entertained as to the nature of acute hydrocephalus. Describe its anatomical characters, symptoms, diagnosis, and treatment.

THURSDAY, November 19.—Afternoon, 3 to 6.

MEDICINE.

Examiners, Dr. BILLING and Dr. TWEEDIE.

1. Sketch the circumstances that influence the prognosis in diseases of the heart.

2. Describe the lesions found after death in ileo-typhus (typhoid fever), detailing minutely the progressive changes that take place in the alimentary canal.

MEDICAL NEWS.

ROYAL COLLEGE OF SURGEONS.—The following gentlemen, having undergone the necessary examinations for the diploma, were admitted members of the College at the meeting of the Court of Examiners on the 20th inst.:—

BLENNERHASSETT, EDWARD, Killarney.
BURNS, WILLIAM M'GREGOR, Glasgow.
KELLAND, CHARLES T., Plaistow, Essex.
MANNING JOSEPH, Northampton.
POOL, WILLIAM BROOKS, Canterbury.
ROBINSON, JOHN, Frodsham, near Liverpool.
TOTHILL, JOHN HENRY H., Topsham.

At the same meeting of the court Mr. CROFT GEORGE SYMONS, of Haslar Hospital, passed his examination for naval surgeon. This gentleman had previously been admitted a member of the College, his diploma bearing date April the 7th, 1854.

DEATH.

FALCONER.—On the 8th instant, at Bath, David Falconer, of the Madras Medical Service.

APPOINTMENTS.

Dr. MARKHAM has been appointed Consulting Physician to the Great Western Railway Provident Association.

MR. RICHARD MADDOCK NUNN was unanimously elected, at the meeting of the Orsett Board of Guardians on the 5th instant, Medical officer of the Gray's district, *vice* T. Appleby Stephenson, who resigned.

LACTIC ACID IN THE BLOOD.—Dr. Richardson laid before the Medical Society of London at their last meeting a heart in the second stage of endocarditis; the subject had been a dog, and the cause of the disease the introduction of lactic acid into the system by the peritoneum. Dr. Richardson explained that after a long inquiry into the effects of the alkalies, he had turned his attention to the influence of the acids, selecting first for experiment the lactic as a feeble acid, and as an acid to which unusual importance had been attached, from the fact that Dr. Prout had first spoken of it as the probable materies morbi of acute rheumatism. The author having failed in introducing the acid into the systems of animals by the mouth in such a way as to excite any specific symptoms, and having equally failed in injecting it into veins owing to the immediate effects, he introduced it into the peritoneal cavity. Here the acid was quickly absorbed, and in such a way as to produce the pathological results he now exhibited. The heart presented showed acute valvular disease of both sides. One segment of the tricuspid, swollen several times beyond its usual size, and having a pale red appearance, was bound by recent adhesion firmly down to the cardiac wall. The mitral was swollen and vascular, and around the upper margin it was studded with fibrinous beads. The animal had been subjected to the acid on three occasions, 75 grains of the acid with 4 grains of water having been thrown in each time at intervals of two days. Twenty-four hours after the first injection the heart was embarrassed and the first sound obscure. Forty-eight hours after the second injection a well-marked systolic bruit came on, and continued till death. Death had been prematurely hastened in this case. By an accident in the last injection the bowel had been slightly torn by the injecting needle, and the intestinal contents had flowed into the peritoneal sac. Dr. Richardson in commenting on this case showed drawings in which endocarditis thus produced was present in the first stage, and in the stage of recovery. He did not, he said, hastily rush to the conclusion that his experiments, seven of which were briefly referred to, proved to demonstration that lactic acid was the true cause of rheumatic endocarditis, but they certainly proved thus far, that lactic acid was sufficient to produce such endocardial condition. In the heart placed before the Society it would be observed that both sides were affected, which was uncommon in simple rheumatic endocarditis. This arose from the fact, that in the experiment the acid had to traverse with the venous blood the right side of the heart before it reached the left—hence, both sides were affected. The cause of the immunity of the right side of the heart in simple rheumatism, he (Dr. Richardson) explained by two propositions: 1. That the action of the poison was local, *i. e.* it exerted a direct action on the endocardial surface. 2. That in ordinary rheumatism the poison was a product of respiration. Thus the poison being formed in the course of the pulmonic circuit was carried over the left endocardial surface; and being distributed through the body was either thrown off in the exeretions, or if returned by the veins, returned so modified or neutralized as to exert no injurious influence on the right endocardial membrane. The instrument used by the author for injection was laid before the Society. It is very simple, viz., a thin finely pointed hollow needle, attached to a small india-rubber injecting pump. The needle being carefully thrust through the abdominal wall, but directed a little upwards so as to avoid intestine, the solution of the acid warmed to 96 degrees is gradually thrown in and the needle is withdrawn. To hasten absorption the animal is kept without food or drink a few hours previous to the operation.

ROYAL COLLEGE OF SURGEONS IN IRELAND.—On Monday the 23d inst., the course of Military Surgery was commenced in the Theatre of the College, by the Regius Professor, Mr. Tuffnell, in the presence of a crowded and distinguished audience, among whom were Lord Seaton, Commander of the Forces, and at present one of the Lords Justices of Ireland; the Lord Mayor; General Gascoigne; the Deputy Adjutant General; the Deputy Quarter-master General; the Inspector General of Hospitals, Dr. Bell; the Deputy Inspectors General, Drs. Carter and Dempster; the Provost of Trinity College; Sir Philip Crampton, Bart.; Sir Henry Marsh, Bart., President of the College of Physicians; Dr. Hans Irvine, President of the College of Surgeons; Sir James Pitcairn, M.D.; &c. &c. The learned lecturer's very able address was arranged under the following heads:—first, the considera-

tion of the necessity of England's maintaining all her military establishments, with their auxiliary departments, in a state of the highest efficiency. Secondly, a review of the influence exerted by sickness in reducing the strength of an army. Thirdly, a retrospect of the past and a view of the present condition of England as regards the sanitary condition of her troops. And, lastly, observations on the education and position of those upon whom the future medical charge of our fleets and armies is to devolve. Towards the close of his address the Professor alluded to the new and splendid museum of military surgery now in the possession of the College, containing contributions from the Emperor of the French, the King of Sardinia, and the Turkish Sultan.

Dr. JOHN ALDRIDGE has been elected Professor of Chemistry in Steevens' Hospital Medical College, Dublin, in the room of Mr. Warren, resigned.

THE ALLEGED DEATH FROM MEDICAL MALPRACTICE IN MARYLEBONE.—INVESTIGATION BY THE BOARD OF DIRECTORS.—Yesterday, at the meeting of the directors and guardians of the poor of St. Marylebone, held in the board-room of the workhouse, Mr. C. Beevor in the chair, the report of a special committee of the whole board, appointed to investigate certain serious charges preferred against one of the parochial medical officers, Mr. Bridgman, by a poor woman named Shepherd, who went so far as to charge Mr. Bridgman with causing the death of her son, aged 19, by his unskilful treatment, was brought up and read. The committee stated that after two hours' careful investigation, in which Mr. Bridgman, Mrs. Shepherd, and her daughter were examined, they came to the conclusion that the charge was not in the least substantiated, and that it was entirely unfounded. Mr. Webb, in moving the adoption of the report, said that he could well understand why the poor woman Shepherd was induced to make so serious a charge, which, in fact, was entirely erroneous. Of course she took the deepest interest in the life of her son, and, smarting under his loss, she thonght to herself that all was not done that might have been. He had been suffering from typhoid fever, and she thought directly opposite treatment to that pursued should have been adopted by Mr. Bridgman; but that gentleman clearly proved that everything that science or skill could suggest had been done, and he was backed up by the best authorities in his profession in the matter. Mr. Cole denied that full justice had been done, but this met with much dissent, and, after some discussion, the report of the committee was adopted, only one voting against it. in the person of Mr. Cole. The Secretary was then ordered to forward a copy of the report to Mr. Bridgman.

MR. SYME ON CAUSTICS.—"Mons. Velpeau, in speaking of the caustic made by mixing sulphuric acid with saffron, expresses his persuasion that it would be the best of all escharotics, except for its expense and the difficulty of confining its action within certain limits. It occurred to me that sawdust would supply the place of saffron, and my assistants at the Hospital ingeniously devised the following effectual means of restraining the extent of action. A solution of gutta percha in chloroform is applied to the skin for some distance round the part to be attacked; then a thick piece of the same material, with an aperture cut in it of the requisite size, and softened by exposure to heat, is pressed firmly, so as to adhere everywhere to the surface thus prepared; a thin piece is next glued round the edge of the opening, so that, when supported by a stuffing of lint, it may form a wall inclosing the diseased part. Concentrated sulphuric acid, with about an equal weight of sawdust stirred into it, until the mixture assumes a homogeneous consistence equal to that of thin porridge, is lastly applied, in quantity proportioned to the extent of thickness concerned. In the first instance, as the pain is acute, opiates or chloroform may be used; but after a short while so little uneasiness is felt, that the patient can easily allow the caustic to remain for ten or twelve hours, when it will be found that the whole diseased mass, though covered with skin, and several inches in depth, has been reduced to a cinder, presenting the appearance of strongly compressed tow. Under poultices, the slough separates in the course of days or weeks, according to its depth, and the sore then heals without any trouble. If, therefore, patients, from an unconquerable dread of cutting, should prefer the escharotic treatment, or if the circumstances on any other account should seem to render this method eligible, the procedure just described may be found useful."—*Edinburgh Journal.*

ROYAL MEDICAL AND CHIRURGICAL SOCIETY.—The following gentlemen will be balloted for as Fellows of the Royal Medical and Chirurgical Society on Tuesday evening, December 8th, 1857. The ballot will be opened at half-past seven o'clock, and will close at half-past eight precisely:—Charles Coates, John Whitaker Hulke, Henry Cooper Rose, James Lewis Siordet.

LOSS OF FRENCH TROOPS IN THE CRIMEA.—Dr Scrive, who acted as Physician-General to the French army during the last war with Russia, has just published a book which contains a painful account of the losses and sufferings endured by the French troops landed in the East, but particularly by those engaged in the siege of Sebastopol. Of 309,278 officers and men sent from France during that short war 200,000 entered the hospitals, and were treated professionally, 50,000 for wounds received in action, and 150,000 for diseases of various kinds contracted during the campaign. The first troops which embarked in France were attacked with cholera which followed them to Athens, Gallipoli, Varna and the Dobrudstcha. On their arrival before Sebastopol the cholera again attacked them, and the receptions in the military hospitals during the month of January, 1855, amounted to 9,000. They were chiefly treated for cholera, scurvy, frostbites, and wounds of every description. Typhus fever shortly after set in. The health of the army was better during the spring of 1855, but the cholera re-appeared in July and placed 4,500 men *hors de combat*. Typhus fever set in again and added to the mortality. On the 8th of September Sebastopol was taken by the allied armies, but, nevertheless, between the 1st of September, 1855, and the 1st of April, 1856, of 145,120 French troops under arms in the Crimea 48,000 entered hospitals. Dr. Scrive says that the scurvy prevailed at this period, the constitution of the men being impaired through fatigue and privations. He further adds that the most disastrous period of the campaign, in a medical point of view, was during the months of February and March 1856. A violent typhus, engendered by the infection of the heaps of refuse in the camp, struck down more than 19,000 soldiers at the end of the campaign, notwithstanding the precautions adopted by the medical staff. It is said that the number of sick in hospital in proportion to the force under arms was never so great in any former campaign. Of the medical staff 83 physicians or surgeons fell victims to their devotedness—"an enormous figure" observes the author, "when one reflects on the small number employed."

SOUTH-EASTERN BRANCH OF THE BRITISH MEDICAL ASSOCIATION.—On the 18th November, a Special Meeting of this Association was held at the Junction Hotel, Redhill, for the purpose of considering the evidence taken before magistrates at Tunbridge on the charge preferred against Mr. Delves, Surgeon of that town, of having criminally produced abortion. There were present, George Bottomley, Esq., Croydon; Lewis Newnham, M.D., Camberwell; Charles M. Thompson, Esq., Westerham; Thomas H. Smith, Esq., St. Mary, Cray; Andrew Sisson, Esq., Reigate; William Street, Esq., Reigate; John Sisson Steele, Esq., Reigate; George Stilwell, Esq., Epsom; J. Milner Barry, M.D., Tunbridge Wells; Peter Martin, Esq., Reigate; J. Lucas Worship, Esq., Riverhead; James Stedman, Esq., Guildford; William Wallis, Esq., Hartfield; C. Holman, M.D., Reigate; Richard Gravely, Esq., Newick; Henry Harris, Esq., Reigate; Charles Trustram, Esq., Tunbridge Wells; John Blaxland, Esq., Tunbridge Wells; Henry L. Sopwith, Esq., Tunbridge Wells. Charles M. Thompson, Esq., of Westerham, President of the branch, took the chair. The short-hand writer's minutes of evidence were laid before the meeting. After discussion it was proposed by James Stedman, Esq., of Guildford, seconded by Dr. Milner Barry, of Tunbridge Wells, and resolved unanimously,—"That this meeting having considered the evidence produced in the proceedings taken against Mr. Delves, of Tunbridge, on a charge of having criminally produced abortion, is of opinion that this charge is not sustained, either by the general or professional testimony adduced; and that while the members of the branch congratulate Mr. Delves on the fact of the magistrates having on two separate occasions dismissed the charge, they desire to express their sympathy with him on the occasion, and their conviction that no stain whatever remains on the character of Mr. Delves." Proposed by Thomas Hixtall Smith, Esq., of St. Mary Cray; seconded by W. Wallis, Esq., of Hartfield, and resolved unanimously,—"That the best thanks of the meeting be given to Mr. Trus-

tram for the pains he has taken in bringing this matter before the branch, and that he be congratulated on the satisfactory conclusion of this case, in which he has both here and during its progress shown so much intelligence and zeal."—PETER MARTIN, *Secretary*.

FISKE FUND PRIZE ESSAYS.—The following are the two subjects for the prizes (100 dollars each) to be awarded in 1858 :—1. The effects of the use of alcoholic liquors on tubercular disease, or in constitutions predisposed to such disease. 2. The morbid effects of retention in the blood of the elements of the urinary secretions. The essays are to be forwarded to the secretary of the trustees of the Fiske Fund, Dr. Arnold, Providence, by the 1st May, 1858.

PARIS FACULTY OF MEDICINE.—As an appendix to our accounts of the arrangements of our own Medical Schools for 1857-8, we subjoin that of the Paris Faculty, where the lectures commenced Nov. 16 :—Pharmacy, Professor Souberain ; Physiology, M. Béclard, as substitute for Professor Bérard ; Surgical Pathology, Professor Denonvilliers ; Medical Chemistry, Professor Wurtz ; Operations and Apparatus, Professor Malgaigne ; Pathology and Therapeutics, M. Laségue, as substitute for Professor Andral ; Medical Pathology, Professor Guillot ; Anatomy, Professor Jarjary ; Clinical Medicine, Professors Bouillaud and Piorry, at La Charité ; and Professors Rostan and Trousseau, at l'Hôtel Dieu ; Clinical Surgery, Professors Laugier and Jobert de Lamballe at l'Hôtel Dieu ; and Professors Velpeau and Nelaton at La Charité ; Clinical Midwifery, Professor Dubois, at l'Hôpital de la Faculté.

CRIME IN SWEDEN.—The following curious facts are from one of the letters of an F.R.S. in the *Morning Post*, to which we alluded last week :—"Recent writers have said, when speaking of the Swedes, that crimes are frequent among them ; indeed it is even stated that 1 out of every 140 persons in Sweden were not long ago convicted of one offence or other, for which they had suffered punishment. If true, that ratio is 7 times higher than the proportion observed in England." Further the writer says, "By a return in his possession, among 1183 criminals recently undergoing sentence in Swedish prisons, 6 were convicted for the murder of parents, 26 for procuring abortion, 106 for infanticide or being accomplices therein, with 374 for other murders, intent to kill, and those implicated, of whom it may be added as curious, 352 were males and only 22 females. The above sad details may doubtless be accounted for in part by the large amount of illegitimate births, said to be about one-third of the whole recorded annually, as also the great prevalence of drunkenness among the lower classes in Scandinavia."

GELSEMINUM SEMPERVIRENS IN GONORRHŒA. — Dr. John Douglas, of Chester District, S.C., states (*Charlestown Med. Jour.* July, 1857), that "about thirty years ago, I was called on, in my office, by a young man who had been suffering several months with improperly treated gonorrhœa. One of my pupils begged me to give the case to him, observing that he could cure the most obstinate case in a few days with the root of yellow jessamine. A small handful of the root was put into a common junk bottle of whiskey, and the patient ordered, in a day or two, to take a tablespoonful of this tincture night and morning. He took but a few doses before he became much alarmed, and called on me, stating that the medicine had destroyed his vision. The symptoms he described correspond precisely with those mentioned by Dr. M. Every symptom of gonorrhœa had disappeared, and the cure was permanent. Since that time I have treated many cases of the same character in a similar manner with uniform and speedy success." My experience with the medicine is not sufficient to determine whether it is absolutely necessary that the patient should be fully narcotized, but such was the condition in every case which I treated. I have no doubt but a more protracted use in smaller doses would answer the purpose.

VITAL STATISTICS OF LONDON.

Week ending Saturday, November 21, 1857.

BIRTHS.

Births of Boys, 886 ; Girls, 864 ; Total, 1737.
Average of 10 corresponding weeks, 1847-56, 1467·7.

DEATHS.

	Males.	Females.	Total.
Deaths during the week	714	668	1382
Average of the ten years 1847-56	..	..	1101
Average corrected to increased population	...	..	1211
Corrected average for corresponding week in ten years 1847-56	545·9	555·4	1101·3
Deaths of people above 90	2	11	13
Deaths in 13 General Hospitals	54	14	68

DEATHS REGISTERED DURING THE WEEK.

Causes of Death.	In the Week ending Saturday, Nov. 21, 1857. Deaths of Persons. At all ages.	Under 20 Years of Age.	At 20 and under 40 Years of Age.	At 40 and under 60 Years of Age.	At 60 and under 80 Years of Age.	At 80 Years of Age and Upwards.	Averages of Temperature and Deaths in 10 Weeks.
Mean temp.							
Mean Temperature	44°2						41°8
ALL CAUSES	1382	635	170	245	255	77	1101·3
SPECIFIED CAUSES	1377	632	169	244	255	77	1095·6
DISEASES:—							
1. Zymotic Class	253	208	8	21	12	4	267·7
2. Dropsy, Cancer, and others of uncertain seat	54	6	14	17	16	1	47·7
3. Tubercular Class	203	62	77	57	7	..	170·9
4 Of Brain, Nerves, etc. ..	150	59	13	29	43	6	116·3
5. Of Heart, etc.	53	4	9	20	15	5	44·4
6. Of Respiratory Organs ..	390	190	21	62	97	20	220·1
7. Of Digestive Organs ..	60	16	9	16	15	4	57·2
8. Of Kidneys, etc.	17	3	4	5	5	..	11·0
9. Of Uterus ; viz. — Puerperal Disease, etc. ..	6	1	4	1	..	..	8·9
10. Of Joints, Bones ; viz.— Rheumatism, etc. ..	7	2	2	2	1	..	8·6
11. Of Skin, etc.	7	..	..	3	4	..	2·9
12. Malformations	6	6	..	..	..	..	3·9
13. Debility from Premature Birth, etc.	27	27	..	..	..	..	25·0
14. Atrophy	38	27	..	1	9	1	27·9
15. Age	57	..	..	..	24	33	45·1
16. Sudden	10	7	..	..	2	1	8·8
17. Violence, Privation, etc...	39	14	8	10	5	2	29·2
CAUSES NOT SPECIFIED.. ..	5	3	1	1	..	..	5·7

DEATHS IN SUB-DISTRICTS FROM EPIDEMICS.

	Population. 1851.	Measles.	Scarlatina.	Hooping-Cough.	Diarrhœa.	Cholera.	Typhus.
West	376,427	7	16	10	3	..	9
North....	490,396	9	9	13	5	..	9
Central ..	393,256	7	5	7	5	..	5
East	485,522	8	10	13	8	..	12
South	616,635	4	10	10	3	1	6
Total..	2,362,236	35	50	53	24	1	41

METEOROLOGY.

From Observations at the Greenwich Observatory.

Mean height of barometer	30·125 in.
Mean temperature	44·2
Highest point of thermometer	54·4
Lowest point of thermometer	35·5
Mean dew-point temperature	42·4
General direction of wind	Variable.
Whole amount of rain in the week	0·00
Amount of horizontal movement of air in the week ...	230 miles.

TO CORRESPONDENTS.

We have received two important communications respecting the resignation of the five Surgeons of St. Mary's Hospital, Manchester ; but we must defer any notice of the subject until replies have been received to certain inquiries we have made.

Dr. Todd's Clinical Lecture on Cirrhosis of the Liver will appear next week.

Dr. Aveling.—Yes. We will consider the subject at length in a future Number.

Mr. Manby.—The case is a very hard one, but it would hardly be safe to comment upon it in this Journal.

ERRATA.

TO THE EDITOR OF THE MEDICAL TIMES AND GAZETTE.

SIR,—Do me the favour to correct a mistake made—though not by you—in my name as author of a paper read before the Royal Society, "On the Function of the Thyroid body," of which you gave an abstract in your Number of the 24th ultimo. My uame is not *Peter*, but

Benuett-st., St. James's, Nov. 24. PATRICK MARTYN, M.D. Lond.

TO THE EDITOR OF THE MEDICAL TIMES AND GAZETTE.

SIR,—Permit me to correct an error that appeared in the *Medical Times and Gazette* of Saturday last. The name of the surgeon who was severely wounded in the attack on Nembheera, on Sept. 20, is *H. Chalmers Miles*, Assistant-Surgeon to Her Majesty's 83rd Regiment, and not *D. Mills*. I consider it only justice to my brother that his name should be added correctly to the bright role of surgeons who, dnring the Crimean war and present Indiau mutiny, have distinguished themselves by their courage and the strict performance of their duties under dangers to which they were exposed equally with all their military brethren. At the same time, allow me the pleasure of informing you that in his last letter to me he writes of his wouud as healing up favourably. I am, &c.

CHARLES MILES.

13, Conduit-street West, Westbourne-terrace, Nov. 22, 1857.

VACCINE LYMPH.

TO THE EDITOR OF THE MEDICAL TIMES AND GAZETTE.

SIR,—Will you be kiud enough to insert the following in your next Number :—

Having failed in my last supply of vaccine lymph from Londou, I shall feel much obliged to any of my Medical brethren for a few points of fresh lymph from a healthy child, uot later than the eighth day.

I am, &c. JAS. GARDNER,

Downham, Nov. 21. Medical Officer of Downham Union.

The letters of *Dr. Greenhow* and *Mr. Evans* on Cholera and Premonitory Diarrhœa shall appear uext week, if possible.

MODEST ASSURANCE.

TO THE EDITOR OF THE MEDICAL TIMES AND GAZETTE.

SIR,—Have you seen any of the enclosed hand-bills? Several of my friends got them in Grafton-street yesterday. The thing is a disgrace to our Profession and to this city, and I know not how to account for the extract from the "*Medical Times and Gazette*." It must surely be a fabrication. I am, &c. L. C.

PRIVATE MEDICAL ADVICE.—Dr. Day, M.R.C.S., Physician to the Port- and Dispensary, 15, Westland Row, nearly opposite the Railway Station, Dublin, continues to be consulted on all cases of a private uature, comprising Gouorrhœa, Gleets, Strictures, Eruptions on the Body, Bnbo, Secondary Symptoms, &c., and guarantees a perfect cure of slight cases in two or three days, without the use of Mercury or hindrance from business. Those who are labouring under the Effects of Early Excesses, causing Incapacity, Impotency, Trembling of the Hands, Emissions during Sleep, Weakness in the Loins, Loss of Memory, Pimples on the Face, Depression of Spirits, Involuntary Blushing, Incapacity for Study or Business, Confusion, Dislike of Society, Giddiness, Fulness after Meals, Noises in the Head or Ears, should immediately apply for relief, as Dr. Day's successful treatmeut is based on 25 years' practical experience, which is a sufficient guarantee for his promptitude aud skill.

Extract from the "*Medical Times*," 26th July, 1856.—"We should advise those of our medical friends who have serious, or what may be considered incurable cases of the Venereal Disease, to hand them over to Dr. Day, as in uo instance do they leave his treatment without a perfect cure being effected."

The utmost secrecy may be relied on. Consulting hours from nine in the morning till nine in the evening. On Sundays till two o'clock.

Observe: 15, Westland-row, nearly opposite the Railway Station.

[It is unnecessary to add that the quctation cannot be found in this Journal.—ED.]

Mr. Rhind.—We shall be happy to see the paper, and comply with the request as to the MSS.

LONDON MILK, IS IT FIT FOR INFANT'S FOOD?

TO THE EDITOR OF THE MEDICAL TIMES AND GAZETTE.

SIR,—The question of Hand-feeding *v.* Wet-nursing having engaged much attention in the Medical world of late, I venture to suggest the consideration of a most important matter in connexion with this interesting subject.

I allude to the quality of cow's milk, which forms the chief part of an infant's diet. I am not going to enter into the question of adulterations. The "tricks of trade" have been so completely exposed, that it is not likely such practices can be persisted in; but a greater evil has to be looked into,—the diseased state of cows kept for dairy purposes. This is a serious matter for consideration, and one that calls loudly for legislative interference. A twofold mischief arises out of the crowded state of ill-ventilated cow-sheds. 1. The animals themselves, ill-fed, ill-tended, and without exercise or fresh air, must be in a very unfit condition to yield a beverage, which thousands of children depend on for their daily and almost hourly nutriment. 2. The atmosphere of such localities must be sadly tainted by the exhalatious from these sheds, making the surrouuding neighbourhood unwholesome aud uninhabitable.

A partial remedy seems to offer itself in the appointment of an inspector, whose duties would be to inquire into the health of cows, and the state of cow-sheds, to ascertain that the latter are sufficiently spacious, not over-crowded, and properly ventilated, so that the poor animals may have room to move, air to breathe, and a chance of a better fate than a slow and painful death; also in the event of any among them being unfit for milking, the owner to be reported and fined.

A more complete reform would be secured by the removal of cow-sheds from the metropolis. Milk could be supplied from the suburban districts twice a day, by means of the railways or other suitable conveyance. Now that there is such a strong feeling in favour of rearing infants by hand (when they are denied the blessing of their mother's milk), it is important to inquire into all the probable causes of ill-success, and, if possible, to remove them, in order that nothing may stand in the way of so desirable and so hopeful a scheme. It is one which will henceforth not only engage the attention of scientific men, but will secure the sympathies and the co-operation of practical philanthropists generally.

The establishment and encouragement of Training Institutions, where mothers and nurses may receeive practical instruction in feeding and managing infants on scientific prineiples, will be a great step gained. At no distant day, a better system will assuredly succeed to the very imperfect notions of feeding which at present prevail. But this is not all: skill must have good material to work upon. The adnlteration of milk and bread in eities and towns would in a great measure account for the high rate of sickness and mortality of infants therein. The pure air of the country, though beneficial to a great extent, does not so much promote health as the more wholesome food, and the more primitive habits of the people; for instance, to begin at the beginning, the village mother drinks more pure water, and less of fermented liquors, her offspring, therefore, are not so predisposed to inflammatory attacks as are the children of townswomen. Then again, the home-made bread, and the genuine and pure milk from the farm, nourish, and do no harm. Not so the milk of towns, which does uot nourish and is (as we have seen) decidedly injurious.

Pure milk—pure at its source—being so necessary to the public health, especially to that of the infant population, I trust you will aid by your pen the extermination of Metropolitan Dairies; and if you can in the meantime afford space for my letter, you will much oblige.

November 23. I am, &c. M.A.B.

SOUTH WALES RAILWAY ACCIDENT.

TO THE EDITOR OF THE MEDICAL TIMES AND GAZETTE.

SIR,—As one of the Medical students who was present at the late Railway accident on the South Wales Railway, I beg to observe the Railroad Company have not as yet shown any symptom of their acknowledgment of our services. I enclose my eard. I am, &c.

Clifton, Bristol, Nov. 20, 1857. MEDICAL STUDENT.

WARMING AIR BY CANDLES.

TO THE EDITOR OF THE MEDICAL TIMES AND GAZETTE.

SIR,—Having by what is called an accident been greatly benefited in my breathing, I know of no plan so likely to make others sharers of my blessing, than by sending you a very brief account, to be spread over the kingdom in your well read colnmns. With many others I have to be very particular in ascending stairs, on account of difficulty in respiration coming on, and especially in cold nights. A few evenings since, in going up to my bed-room, I insensibly put the taper that was in my hand near to my mouth, so that I inhaled the warmed atmosphere immediately around the flame. I instantly felt my breathing easier. Every night since then I have pursued the same plan, and with the same advantage; and the reason appears so demoustrable that one wonders it had never been tried before; perhaps it has, but not made known.

I am, &c. W. G. RHIND, Lieut. R.N.

Ross, Nov. 1857.

COMMUNICATIONS have been received from—

Dr. TODD; Dr. SNOW; Dr. LETHEBY; Mr. WILDE, Dubliu; Dr. RADCLYFFE HALL; Dr. AVELING; Mr. P. MARTIN; Mr. YEARSLEY; Mr. WIBLIN; Mr. COWPER; Messrs. ROWDEN; Dr. GREENHOW; Mr. PARKER; Dr. P. MARTYN; Dr. G. HEWITT; Dr. BAINES; Dr. AITKEN; Dr. LYONS; Mr. PIPER; Dr. SCRIVE; Mr. BINGLEY; Dr. NOBLE; Mr. EVANS; Mr. BLANCHARD; Mr. W. PARKER; Dr. GREENHOW, Newcastle; Mr. RHIND; Mr. WILSON, St. Leonard's; Mr. A. SQUIRE; Dr. J. M'DONALD; Mr. R. M. NUNN; Mr. A. DICKEY; Mr. W. EWART; Mr. F. MEDFORD; Mr. T. BAKER; Mr. H. TURNER; Dr H. MILNE; Mr. J. C. KENT; Mr. J. BLENKIN; Mr. F. M. SMITH.

APPOINTMENTS FOR THE WEEK.

28. *Saturday* (*this day*).

MEDICAL SOCIETY OF LONDON, 8 p.m.: P. C. Price, Esq., "On som Features of Practical Interest in Connexion with the Operation o Resection of the Knee-Joint for Articular Disease."

GUY'S PHYSICAL SOCIETY, 7 p.m.: Mr. Evaus, "On Hæmaturia."

Operations at St. Bartholomew's, 1½ p.m.; St. Thomas's, 1 p.m. King's 2 p.m; Charing Cross, 1 p.m.

30. *Monday*.

Operations at the Royal Free Hospital, 1 p.m.; Metropolitan Free Hospital, 2 p.m.; Orthopædic Hospital, 3 p.m.

1. *Tuesday*.

PATHOLOGICAL SOCIETY OF LONDON, 8 p.m.

Operations at Guy's, 1 p.m.; Westminster, 2 p.m.

2. *Wednesday*.

HUNTERIAN SOCIETY, 8 p.m.: Dr. Barnes, "On the Asphyxia of Newborn Infants, and the means of Restoration."

Operations at University College Hospital, 2 p.m.; St. Mary's, 1 p.m. Orthopædic Hospital, 3 p.m.

3. *Thursday*.

HARVEIAN SOCIETY, 8 p.m.: Dr. Graily Hewitt, "On Coagula formed in the Veins during the Pnerperal State, aud their Occasional Transportation into the Pulmonary Artery."

KING'S COLLEGE MEDICAL SOCIETY, LONDON. *Clinical Meeting.*

Operations at St. George's, 1 p.m.; Middlesex, 12½ p.m.; Central Loudou Ophthalmic, 1 p.m.; London, 1½ p.m.

4. *Friday*.

WESTERN MEDICAL AND SURGICAL SOCIETY, 8 p.m.: Mr. Ellis, "Notes on the Defects of Ordinary Escharoties, with Suggestions for their Improvement."

Operations at the Moorfields Ophthalmic, 10 a.m.; Westminster Ophthalmic, 1½ p.m.; Great Northern. 2½ p.m.

EXPECTED OPERATIONS.

King's College Hospital.—The following operations are expected at this Hospital to-day (Saturday), at 2 o'clock :—

Division of Tendo-Achillis, in two eases; diseased bones on carpus; by Mr. Fergusson. Excision of the hip, by Mr. Bowman.

ORIGINAL LECTURES.

ABSTRACT OF A CLINICAL LECTURE ON THE

CHRONIC CONTRACTION OF THE LIVER, (CIRRHOSIS),

AND ON THE CHRONIC ENLARGEMENT OF THAT ORGAN,

DELIVERED AT

King's College Hospital,

Oct. 10, 1857,

By R. B. TODD, M.D. F.R.S.

This being his first Clinical Lecture for the Session, Dr. Todd made a few remarks suggested by the occasion. He invited those students whose other avocations permitted their attending the early visit now established (at 9 o'clock on the mornings of Tuesdays, Thursdays, and Saturdays) to be regular in their attendance, and to take a decided part in the business of the "Clinic;" to be, as the French would say, *Collaborateurs;* to note the cases for themselves, to practise themselves in those physical investigations which are now universally admitted to be necessary to arrive at a just appreciation of the nature and extent of the disease under observation. They must observe and think for themselves; and Dr. Todd expressed his willingness and his desire to receive suggestions from the members of the class, and his readiness to answer questions, and give all the information in his power. He hoped as the session advanced to become intimately acquainted with each member of the class.

The case selected for the lecture was that of a man named Lovett, æt. 27, who had died in the hospital on the 7th, and whose body was examined on the 8th.

The patient laboured under abdominal dropsy or ascites. This was ascertained during life to be due to that disease of the liver in which the organ becomes much shrunken and diminished in size; many portal canals become obliterated, and all more or less contracted, and the vessels in them compressed. The venous blood from the whole intestinal tract and the stomach—nearly the whole surface of the visceral peritonæum—is materially obstructed and retarded in its passage through the liver, and the overcharged vessels relieve themselves on the side where they are least covered, and the serum of the blood transudes into the peritoneal sac.

The invasion of this disease of the liver, well known by the name of *Cirrhosis*, is always insidious and obscure, and the patient is often not conscious of being ill until one of the most serious consequences of the disease begins to show itself in the enlargement of the belly, consequent on the accumulation of water in it. This was the case with this patient, Lovett, who first observed the abdominal swelling on the first of June. He was an intemperate man, and had drank very hard, although for some time previous to the appearance of the swelling he had been leading a regular life.

The seeds of the disease, however, had been sown long previously, and, once the dropsy had begun to show itself it made gradual progress. He first became a surgical patient for a tumour in the right leg. This proved to be a chronic abscess, and was cured—the dropsy all the while gradually increasing, and on the 25th of July he was transferred to the Physicians' ward, with a belly tense from accumulated fluid.

The patient exhibited a considerable degree of sallowness, or more properly of yellowness of skin, with a yellow tinge of conjunctiva, which, although much less than we see in ordinary jaundice, was evidently due to bile retained in the blood. The yellowness was rather greater than is usually seen in cases of contracted liver. The urine contained bile, as was shown by the nitric acid test, which does not produce the play of colours unless there be a decidedly notable quantity of bile present. The day before this patient was admitted into the Physicians' ward, he vomited a large quantity of blood, as much as a pint and a half. This is a very common concomitant of this chronic disease of the liver, and of an advanced stage of it, and is caused chiefly, no doubt, by the over-distension of the vessels of the mucous membrane of the stomach, consequent on the obstructed portal circulation.

No evidence could be obtained, either by palpation or by percussion, of *enlargement* of the liver. Looking, then, at the evidence of obstructed portal circulation, the dropsy, the absence of signs of cardiac and renal disease, and the pre-existing symptoms, progressive emaciation with imperfect biliary excretion, we could come to no other conclusion than that the liver was of the small contracted kind.

Various diuretic remedies were used for a period of six weeks, with more or less effect in provoking an increased flow of urine, but with no effect in diminishing the size of the abdomen. The belly steadily enlarged, until its girth measured forty-three inches, and the patient's breathing became much embarrassed.

It was now resolved to tap; and on the 12th of September Mr. Hulke operated, and drew off nearly thirty pints of straw-coloured albuminous fluid.

Although much relief followed the operation immediately, the patient showed no disposition to rally; on the contrary, he seemed to sink day by day, the belly began to fill, and became very tympanitic over the course of the colon. He died three weeks after the operation.

The post-mortem inspection showed in the expanded and patulous condition of the abdominal walls, and the remarkably vaulted state of the diaphragm, how these parts are permanently impressed by the pressure of long accumulated fluid. Overstretched abdominal parietes (as these had been) will not contract on the removal of the distending fluid, but remain flaccid and lax. It is very questionable practice to postpone tapping until such a degree of over-distension occurs.

We found signs of recent effusion of lymph, to no great extent, on the peritoneal surface of the intestines.

The liver (which was exhibited at the lecture), was very much shrunk; it was covered by an opaque membrane, and occupied a much smaller space than is natural; but it was not materially lighter, for it weighed three pounds seven ounces. Its surface was fissured and tuberculated; and a cut surface presented the knotted appearance characteristic of this form of disease. The capsule of Glisson surrounding the liver was thickened; as was also that in the larger portal canals. On section the colour of the liver was palish yellow; in this instance with less yellowness than usual: the organ, indeed, appeared anæmic. The kidneys, spleen, and other internal organs exhibited no morbid change.

Such (Dr. Todd remarked) is an average case of contracted liver with its consequences. The disease, which no doubt is most frequently the result of intemperate habits in drinking, is very common, and all the cases resemble each other to a remarkable extent. It cannot be discerned with certainty in its early stages, although no doubt a practised eye would seldom be wrong, for the chronic changes which terminate in this shrunken and contracted state of the organ, are, as I have already stated, most stealthy and insidious in their approaches.

A similar group of symptoms accompanies an enlarged, and sometimes a very enlarged condition of the liver. And systematic authors, especially those of late years, regard these two conditions as one and the same disease—cirrhosis. Indeed they lay it down that the enlarged liver is an early stage of the contracted liver, and that the former, by the gradual diminution of its size, passes into the latter.

I find it impossible to accede to this view, and I am anxious to call your special attention to the two cases, that you may, as opportunities offer, direct your attention to their clinical phenomena, and watch whether the one can be traced into the other.

The chronic enlargement of the liver, which is due to intrinsic non-malignant disease of the organ, with more or less thickening of Glisson's capsule (excluding that enlargement which comes from cancerous tumour, hydatid cyst, fatty or waxy disease, scrofulous deposits, as well as from biliary congestion and sanguineous congestion) this enlargement, I say, is also common in hospital and in private practice. Why it is, I do not know, but so it is, that I see more of this chronic *enlargement* of liver in private than in hospital practice. It is attended with some degree of a jaundiced condition—rarely considerable—but generally more than that which you see in the contracted liver. It is also accompanied by peritoneal dropsy; but this is seldom so much in quantity as that in the small liver, and accumulates more slowly, so that you do not so often meet with that extreme distension in the cases of enlarged liver as in those of the same contracted kind. You will all have observed how often, in all forms of abdominal dropsy, both peritoneal and ovarian, large

veins are seen coursing over the abdomen. These are more numerous and larger in the cases of large liver than in those of small.

The prognosis in cases of enlarged liver is more favourable than in the contracted liver. It is in the former cases that tapping has sometimes ultimately proved successful, and that life has been decidedly prolonged, and the comfort of the patient much promoted by repeated tappings. In the contracted liver you can seldom tap but once; the general nutrition of the patient is at so low an ebb, that he has no power to resist or to rally from the depressing effect of the removal of so much liquid or of the invasion of even a limited amount of peritonitis.

It has often happened to me to see a marked diminution in size of some of these enlarged livers; but I have never seen one shrink even to its normal size; much less to a size below the normal; nor have I ever seen a well-authenticated record of a case of this kind where such a contraction had taken place.

Under these circumstances I am, I think, justified in asking you to study these two states of liver, not as one and the same, but as different pathological conditions of the organ, believing that by so doing we are more likely to arrive at an exact knowledge of their real nature, than by taking it for granted (as we are apt to do now), that they are both one and the same disease.

And when I ask you to study the clinical phenomena of the large and the small liver as separate diseases, you must compare the morbid anatomy of each.

If it is true that this shrunk and contracted organ, which now lies before you, never was enlarged beyond the normal size, but has been reduced to its present state by a slow and progressive process of contraction, then it seems to us that it must be essentially different from the enlarged liver.

My own impression is, that in the contracted liver, which alone I would designate *cirrhose*, if, indeed, it be worth while to retain that name, the disease is essentially atrophic; the wasting process begins in the cells of the liver, and that the morbid condition of Glisson's capsule seen on that portion of it which covers the surface of the organ, and is found in the transverse fissure, and in the larger portal canals, is a consequence, and not the cause of the disease of the parenchyma of the organ.

The enlarged liver, on the other hand, does not consist throughout of one morbid state. You have, contributing to the increased size of the organ, thickened Glisson's capsule, which possibly may be inflammatory in its origin; here and there you have cells gorged with fat and other biliary elements, vascular congestion, and biliary congestion; but after a time you may have in parts of this liver a shrinking process and wasting cells, similar to those which are found in the small liver.

Observe, I pray you, that I make no dogmatic assertion on this subject. I ask you simply to observe the clinical phenomena which accompany these two conditions, not as if they were one and the same, but as different pathological states. We shall then arrive at a more definite knowledge of the real differences, if such exist, in the clinical features of the two diseases, which will afford us the best clue to the discovery of their true pathology.

ORIGINAL COMMUNICATIONS.

CASE OF

PERITONITIS FROM PERFORATION (?)

SUCCESSFULLY TREATED WITH LARGE DOSES OF OPIUM—SUBSEQUENT FORMATION OF ILIAC ABSCESS, OPENING INTO THE INTESTINE—RECOVERY.

REPORTED BY

WILLIAM D. MOORE, A.B. M.B. T.C.D.

Licentiate of the Royal College of Surgeons, Edinburgh, and of Apothecaries' Hall, Dublin; and Honorary Member of the Swedish Society of Physicians.

It has occurred to me that, at the present moment, when a recent melancholy event has directed the attention of the profession more especially to the subject of the administration of unusually large doses of opium in cases of severe suffering or of intense inflammation, a report of the following instance of their not only safe, but beneficial employment in such an emergency may, although the efficacy of this mode of treatment is already established, prove interesting.

The Rev. Mr. ———, aged about 28, preached on the afternoon of Sunday, June 11, 1854. A year previously he had a severe attack of ilio-cœcal enteritis, for which he was leeched and salivated. On the evening above mentioned he complained of pain in the stomach, to relieve which he took, of his own accord, a small dose of calomel and rhubarb. At 10 p.m. I was summoned; he still complained of pain; there was some, though very slight ilio-cœcal tenderness; the pulse was 56, full and soft; the tongue was clean. A warm, very gentle aperient draught was prescribed. At half-past three next morning, the pain continuing, and no action of the bowels having taken place, I threw up, with the long tube, about a pint of warm water, with two ounces of olive oil; this injection removed an enormous accumulation of scybala and hardened fæces. The pain, however, did not subside, the pulse had risen to 86, the patient had twice discharged a large quantity by vomiting, and there was decided tenderness in the ilio-cœcal region. I now requested the aid of Sir Henry Marsh, who saw him with me at 9 o'clock. Sir Henry considered it advisable, as a precautionary measure, to apply twelve leeches to the seat of tenderness, and also ordered some mild aperient pills to be given at stated intervals, until the bowels should be affected. Before, however, the medicine could be procured, the patient was attacked with sudden and violent pain in the right iliac region. Having been hastily summoned, I found his countenance completely altered; his face was hippocratic; the pulse was small; his body was covered with a clammy sweat; the abdomen was hard as a board; the respiration was thoracic, quick, and short; anything approaching naturally full inspiration distressed him greatly. Apprehending that perforation had taken place, I wrote to request Sir Henry again to see him, and meanwhile commenced the use of opium, in doses of one grain every hour. The patient had taken two of these when Sir Henry arrived. The opium was now given every half-hour, and the abdomen was covered with a large blister. At one o'clock Sir Philip Crampton saw him in consultation. Pills, each consisting of one grain of calomel and one grain of opium, were now substituted, at intervals of an hour, for those first prescribed. The pain abated, and the patient gradually improved, until at night the prescription was half a grain of opium with two grains of calomel every third hour. The patient had a good night, having taken altogether nine grains of opium in about eighteen hours. Next day he slept at intervals, but without any symptoms of narcotism; weak chicken broth was given during Tuesday night and Wednesday; ice and toast-water formed the balance of his dietary. On Wednesday evening his pulse was 86; there was no tenderness on slight pressure over the right iliac region; and the tongue, which had become furred, was cleaning; he complained only of weakness and weariness; all through the attack he passed water freely. Two or three turpentine and purgative enemas were thrown up during Monday and Tuesday; and finally, on Tuesday afternoon, one of infusion of senna, sulphate of magnesia, manna, and tincture of senna: the last produced some fluid motions. These fluid discharges continued until Thursday morning; from that time until Saturday morning there was no action of the bowels. At the time last mentioned the patient had a perfectly natural stool; his pulse was 68; he felt well; his tongue, however, was still much furred, and he described himself as feeling pain whenever flatus or anything passed the ilio-cœcal valve.

Monday, June 19.—The pain just mentioned gradually increased in frequency and severity, at length recurring every fifteen, and finally every five minutes; it had this morning become thus frequent and was very severe, and was compared by the patient to a violent twisting of the bowel. The bowels act naturally once or twice every morning; there is but little appetite, the tongue being much furred, except at the tip, where it is apparently cleaning. On Saturday it became evident that the right iliac region was more elevated than the left. On Sunday morning a hard round tumour could be distinctly felt in the former situation; this on Monday had greatly increased, and no doubt could be entertained that an iliac abscess was being formed. Poultices were now applied in succession; the pain, which had been intense up to eight o'clock, then suddenly ceased, and had not returned when I

visited him at 3·30, p.m. The pulse was 86, quicker than it had been for the last few days, but there was no rigor, nor any decidedly feverish symptom. Chicken broth, ice, and tea and toast constituted his diet.

June 20.—Has had no return of pain; had three free motions during the night, each of them containing a large quantity of pus; the tumour has disappeared; the pulse is regular, having fallen to the natural standard; the tongue is rapidly cleaning; the abscess has evidently opened into the intestine.

July 1.—On 26th of June the patient left Dublin for a village a few miles from town. From Tuesday morning until now he has had no fæcal evacuation; but on the day last named he began to suffer from a constant desire to discharge the contents of the bowel, and from the very frequent passing of a colourless, glairy mucus; the tongue, which had never perfectly cleaned, became again much furred, and the appetite became bad; the pulse did not, however, rise above 76. In consequence of these symptoms the patient returned to town, and on this day (July 1) he passed, in two discharges, nearly a pint of fetid pus, with a single small scybalous mass. It was evident that the abscess had refilled and opened again; the discharge was followed by great relief, and by a return of appetite. The fur on the tongue looked softer and moister, the pulse was about 70, but the patient was, as might be expected, considerably reduced.

July 2.—The patient had three or four purulent discharges after our visit yesterday; he slept well; had on this (Sunday) morning a natural formed motion, though accompanied with some pus. His tongue was nearly quite clean, pulse 60, appetite and spirits good.

Our patient recovered completely, spent the month of August in Devonshire, having, before he left Ireland, walked to the top of the Three Rock Mountain, near Dublin. He now fulfils, unaided, the duties of a large country parish in the province of Leinster.

In reflecting on the foregoing case, it appears probable that a perforation of the intestine took place on the morning of the 12th of June, but that the resulting effusion was immediately circumscribed, perhaps partly in consequence of adhesions formed during the attack of enteric inflammation, from which the patient had suffered a year previously. The effusion so circumscribed might have led to the formation of the abscess, and the rapidity of the development of the latter seems to favour this view. Of the three directions in which an iliac abscess may open, viz., into the intestine, externally, or into the peritoneum, the pus in this case fortunately followed the most favourable course. As well as I recollect, of sixteen cases of iliac abscess given by Dupuytren in his *Leçons Orales*, thirteen opened into the intestine. The case I have detailed will be thought, I should hope, both interesting and in many respects instructive; it is, however, as I have already mentioned, more particularly in reference to the beneficial action of the large doses of opium administered on the first day of the more serious attack, and to the tolerance of them by the system of the patient, that I bring it forward just now. (a)

ON THE

TREATMENT OF PLEURO-PNEUMONIA,

AS ILLUSTRATED BY SEVERAL CASES IN GUY'S HOSPITAL.

By S. O. HABERSHON, M.D., F.R.C.P.

Assistant-Physician and Lecturer on Materia Medica at Guy's Hospital.

(Continued from page 549.)

Case 4.—John L., aged 17, a labourer residing in Wapping, was admitted under my care into Guy's, June 24, 1857. He had enjoyed good health till two years ago, when he had an attack of fever, which confined him to his bed for five or six weeks. He had been accustomed to much exposure in his work. Five days before admission he had slight rigor, and severe pain in his head came on, and he was obliged to go to bed; on the following day he was seized with pain in the right mammary region, which increased much on full inspiration, and he had a dry troublesome cough; his skin became hot and dry, and he suffered much from headache and thirst; the severity of the pain in the side prevented sleep at night; there was loss of appetite, and the bowels were costive; on the third day he began to expectorate. On admission he presented a strumous aspect; he had a dark complexion; he was well nourished, and had no tremor or prostration; the skin was hot, very dry, and harsh; there was severe headache, stitch in the right side, slight cough; the sputa viscid, and somewhat rust-coloured. He rested most comfortably on the left side. The chest was well formed, but the mobility diminished; percussion on the left side was normal; at the right apex there was dulness, and below the right mamma there was a friction-sound, audible over a space five or six inches in extent; at the right apex there was minute crepitation, and about the central part of the lung there was tubular breathing and bronchophony, with slight increase of the tactile vibration; the sounds of the heart were normal; the pulse 86, regular, compressible, and soft; the tongue was furred in the centre, but red at the tip and edges; there was no apparent disease of the abdomen; the urine was abundant, sp. gr. 1022, and contained the usual amount of chlorides, but no albumen. He was ordered—Bicarbonate of potash, ℈j. in mucilage mixture every three hours, and v. grs. of Dover's powder every night. On the 27th there was less heat of skin, no pain in the head, and the respiration easier; pulse, 78.

29th.—The friction-sound had disappeared, and so also the minute crepitation, and there was no pain, except on deep inspiration. A small blister was applied below the right clavicle, and to continue medicines.

July 1st.—He was improving in every respect, and able to go about the ward; but the tubular breathing continued at the right apex.

6th.—There was less dulness and tubular breathing at the apex, but it still continued to a slight extent; he felt well, and wished to leave the Hospital.

In this case we had a strumous lad, admitted with acute pleuro-pneumonia at the right apex. The signs were well marked, and there was much febrile excitement. Salines and Dover's powder were given; in a few days the more severe symptoms had disappeared. In one week he was about the ward, and a week later he left the Hospital. At that time, however, some consolidation still remained at the apex, slight in extent as compared to that previously existing, but still well marked. The disease was principally at the apex; this, in a strumous subject, would lead us to some additional care, lest the pneumonic product should rapidly break down, and pneumonic phthisis be the result. It was a question whether, if calomel and antimony had been given, there might have been more rapid absorption of the product of disease; we think not, but rather that increased danger would have existed of the lung tissue breaking down, and if such an untoward circumstance had not followed, that the patient would have been exhausted, and rendered anæmic by the mercurial action, and convalescence rendered slow. We are far from stating that instances do not exist in which the use of mercurials and of antimony are not of great service; but perhaps their use has been too indiscriminate where we have found acute pneunomic consolidation of the lung without evidence of depression or exhaustion.

Case 5.—Thomas C., aged 15, admitted into Guy's, July 3, 1857. He had been employed at an ironmonger's shop, where his work was heavy. He was of healthy family, and had always enjoyed good health till four years ago, when he had a severe blow on the head from a cricket-ball; this brought on an illness from which he suffered for two months, and he had intense pain in the head, with delirium; he recovered, but six months ago again had vomiting, headache, and loss of appetite. On June 29th he had a swimming bath, and on the following evening went to a very crowded place of worship. Next day, July 1st, he felt ill, and on the 2nd he was obliged to remain in bed; he had shortness of breath and febrile excitement, thirst and loss of appetite, and felt exhausted and helpless; he was admitted under the care of one of my senior colleagues, on the 3rd instant. He was then in a semi-delirious state, the skin was pungently hot, and he had signs of acute pleuro-pneumonia on the right side. My colleague prescribed

(a) Dr. Stokes, in his valuable "Clinical Observations on Opium," published in the first volume of the first series of the Dublin Journal of Medical Science, after alluding to the previous successful use by Dr. Graves of opium without bleeding in peritonitis after tapping, and to the observations of Drs. Cusack and Gooch on the utility of this medicine in puerperal peritonitis, says at page 128, "I believe I was the first who, by applying these principles to the treatment of peritonitis from perforation of the intestine, even dared to hope for the possibility of a cure in this disease, and in my hands the remedy has been administered with great boldness."

for him calomel, antimony, and opium, and ordered him to be cupped to eight ounces from the right side; the head also to be shaved. This treatment was continued for three days, and on the sixth, from the kindness of my colleague, he was transferred to my care, as I had the clinical ward at the time. He was a fair-complexioned lad, with long eyelashes; his head preternaturally large. On the 6th he had a distressed and anxious countenance, the mind clear and intelligent, the face flushed, the head hot, the lips deeply injected, the pupils dilated, the respiration gasping; he lay on his back, sunken in the bed, and was exceedingly restless; the face was bathed in perspiration; the skin in other parts dry, and the trunk intensely hot. On examining the chest in front, there was increased dulness at the base of the right lung, and tubular breathing was audible; posteriorly the right side was dull from the base to the apex, especially at its lower part; tubular breathing was heard over the whole of the right side, and in the right axilla; the vocal fremitus was diminished, but bronchophony audible. There was puerile respiration on the left side; the abdomen was distended, hot and tympanitic; no maculæ were present. He had slight cough, and his voice was faint; the tongue was red, and much congested; the urine was scanty, high-coloured, and slightly coagulable by heat and nitric acid, and there was only a slight trace of chlorides. The respiration was 44 per minute, and the pulse 130. small and sharp. There was some pain in the head and limbs, but most in the abdomen. In this youth there was evidently acute inflammation of the right lung, apparently produced by exposure, and associated with inflammation of the pleura. Severe constitutional disturbance ensued; delirium (perhaps from inflammatory congestion of the brain and impure blood) and great engorgement of the abdominal organs followed, so that the urine became slightly albuminous. It was doubtful whether the case was one of fever with thoracic complication, but the symptoms did not fully warrant the idea. When he came under my care he had been ill for eight days, and appeared almost in a dying condition, prostrate with clammy sweat, and exceedingly restless. It was thought that it was well to leave off the calomel, antimony, and opium, on account of the prostrate condition, and bicarbonate of potash, with seven minims of the solution of acetate of morphia, with julep of acetate of ammonia were given three times a-day; and beef-tea, arrow-root, and milk as he could take them.

On the 7th he passed a restless night, had no sleep, the pain in the abdomen had increased in severity; in other respects he was as before.

On the 9th he had slept well; there was less distress and pain; the pulse 112, respiration 36.

On the 10th he had improved somewhat; the dyspnœa and restlessness were diminished, and he had rallied considerably; the albumen in the urine had disappeared. The signs on the right side of the chest were as before, and it appeared that effusion had taken place into the pleura. His cough was troublesome, but he swallowed the expectoration, which was scanty.

On the 16th, ten days after admission, it was determined to give him mild mercurial; and Dover's, with grey powder, were given night and morning, and the saline mixture with morphia continued; he was allowed fish. For the next ten days this treatment was followed, and with improvement in the symptoms; the gums became very slightly affected. He was, however, very ill, anæmic, prostrate, and the dulness and tubular breathing continued at the base of the right lung, less than before, but still marked; crepitation, and afterwards nearly healthy respiration had reappeared at the apex. A blister had also been applied, and mild diureties, as nitric ether, given.

On the 27th a chop and vegetables were allowed, and four ounces of sherry wine ordered; and

On August 3, liquor cinchonæ, ɱx., with aromatic spirit of ammonia, were ordered three times a-day, and a third of a grain of morphia every night. Under this treatment he improved rapidly, and in a few days was able to move about the ward; the dulness and tubular breathing slowly diminished in the right side; but had not entirely disappeared when he left the Hospital on August 27.

This case was one of deep interest, both as to the diagnosis and as to the treatment which was most judicious. At first it was doubtful whether the case was one of fever, but all those who watched the case were soon satisfied that it was one of pleuro-pneumonia, in which serous effusion took place into the cavity of the pleura. The albuminous condition of the urine arose probably from great engorgement of the kidneys. Some might affirm that mercurial treatment was inappropriate, others that wine was too long withheld. On July 6 the prostration and almost sinking condition appeared to preclude the continuance of so-called antiphlogistic treatment, but we believe that no good result would have followed at that time from the use of wine or brandy. Mild salines with morphia, and beef tea, milk, etc., were preferred. After he had partially rallied, small doses of mercury were given, so as very slightly to affect the mouth, and apparently with the effect of diminishing diseased action and hastening absorption; afterwards, the febrile symptoms having subsided, bark and ammonia, with wine and meat diet, were prescribed, and were followed by rapid improvement. The question naturally suggests itself, whether if salines had been given from the first, and no depletory measures used or calomel and antimony administered, the same degree of prostration would have ensued, or the absorption of effused products have been so tedious in their disappearance, or even have amounted to the same extent, possibly the patient might have succumbed from the increased severity of the disease.

Case 6.—Thomas H., aged 30, a carman, of very steady and industrious habits, was admitted into Guy's, under my care, May 20, 1857. He had resided in the city, in Trinity-lane, and was married and temperate. Three weeks before admission he experienced pain in the left side, but continued at his work; for several days there was febrile excitement and loss of appetite. He applied at the City Dispensary, and was apparently judiciously treated, but on admission into Guy's was exceedingly ill. On the 20th he had an anxious countenance, the skin hot and slightly clammy; there was dyspnœa; the tongue was covered with a brownish fur; the bowels were open; the pulse 112, sharp; the respiration 42. On examining the chest, the left side was found enlarged and dull on percussion. There was diminution of tactile vibration; tubular breathing except at the base, where there was absence of sound; the heart was somewhat pushed over. On the right side there was minute crepitation at the angle of the scapula. The expectoration was tenacious, frothy, and rust-coloured; there was much thirst, and he had slept badly from the troublesome cough; the urine was not albuminous. There was evidence here of pleuritic effusion on the right side, perhaps with some consolidation, and there appeared to be lobular pneumonia also on the left side. He had been under treatment for three weeks before he came under my care. He was ordered iodide of potassium, gr. iij., with the compound conium mixture of Guy's, three times a day; Dover's powder, gr. v. every night, and a blister to the right side. Beef tea and milk diet. On the 24th, four days after admission, he was still very ill; there was no improvement, but the dyspnœa appeared to be increased. He was then ordered grey powder, gr. ij. with Dover's powder every night, and ipecacuanha wine ɱx. with the conium mixture, every six hours, and to rub in the mild mercurial ointment. On the 28th he was better; the mouth was slightly affected with the mercury; the pulse and respiration were still very rapid, but the dyspnœa less distressing. He was ordered to omit the mercurial and Dover's powder and the mixture, and to take solution of acetate of morphia in mucilage mixture three times a-day, and, in addition to the beef tea and milk, to take two eggs.

On the 30th he was much improved. The pulse rapid, but the respiration much more easy; the expectoration frothy, but less rust-coloured.

On June 8th there was coarse rhonchus on the right side, and still tubular breathing on the left; the tongue was clean, the skin less pungently hot, respiration 32, pulse 116. His diet was improved, and he continued slowly to gain strength. In about six weeks he had so much improved as to be able to leave the hospital and go into the country, but there was still some tubular breathing at the left base and dulness, and also at the apex. Cod-liver oil was prescribed, and generous diet.

Oct. 6th.—He called on me to show himself; stout, and having walked three to four miles at once. On examining the chest, although there was vesicular breathing at the left base, there was not perfect resonance on percussion, probably from pleuritic adhesions remaining; at the left apex the resonance on percussion was imperfect, the respiration coarse, and the expiratory murmur prolonged. When he was exposed to cold air, a slight cough troubled him; the pulse was pre-

ternaturally quick, and his appetite since he had returned to London had fallen off.

This man, on admission, was almost in a hopeless state; the pleuritic effusion was great, and associated with pneumonia; and it was throughout doubtful whether strumous deposit did not also exist. Mercurials were for four days avoided, but conium mixture, with iodide of potassium, given; and it must be remembered that he had been under treatment three weeks before I had seen him. Four days after admission, mercurial inunction was used, and small doses of grey powder, etc., given; the mouth became very quickly affected, and the dyspnœa very much diminished. More generous diet was given, and morphia with mucilage mixture, and, after several weeks, cod-liver oil. It would appear that the mercurial was of value in this case; that it stimulated to the absorption of the serous effusion, and relieved the dyspnœa; and it is probable that in cases of this kind mercury may often prove of great service, especially when combined with salines and diuretics. It is to be feared that in this case strumous disease tended to set up the disease, and that such consolidation exists at the apex of the lung; although he is now stout and has returned to his work we much fear that any fresh attack of bronchitis or of pneumonia will be followed by disorganisation at the left apex.

Case 7.—An Irish lad, aged about 20, two years ago was admitted under my care into Guy's; having been brought from a small lodging-house near the London Docks. He was emaciated; the countenance flushed; the mind sensible; the pulse compressible and quick; the tongue dry and brown, and he in a very prostrate condition; he had slight cough, but no marked dyspnœa. On examining the chest, the dulness, tubular breathing, and bronchophony, etc., indicated consolidation of the lung. He had been ill for about three weeks, but there was no proof of fever. This lad rapidly improved under ammonia and serpentary, and wine freely administered. With this patient there was no doubt as to the impropriety of depletory measures, or of administering antimony and mercury; and, although he would probably have recovered under the better nursing, suitable diet, and purer air, wine and ammonia probably much hastened his recovery. This was a case of typhoid pneumonia, which closely simulated true fever, and one in which the administration of stimulants is often attended with benefit.

These cases are recorded as good examples, illustrating—as regards their treatment—

1st. That active mercurial, antimonial, and opiate medicines are not necessary in many cases of pneumonia, even without depression, and when seen at an early stage. We are well aware that this is somewhat contrary to the published opinions and the practice of many whose experience and talents demand profound respect and attention.

2nd. That convalescence rapidly takes place in many instances under saline plan of treatment, as bicarbonate of potash, as shown by Dr. Hughes Bennett and others.

3rd. That while cases of pleuro-pneumonia, especially in young subjects, as several of the cases related were, may recover even without any medicinal treatment, that salines appear to be of some value, perhaps by increasing the action of the secreting organs, modifying the character of the blood, and hastening the absorption of effused product.

4th. That in other instances mercury appears to be of considerable value, as in Cases 5 and 6, where there was considerable pleuritic effusion.

5th. That in some, especially where there is much bronchitis, with great febrile excitement, without prostration or struma, antimony also is of much service; but that the indiscriminate use of calomel and antimony in very many cases retards convalescence, interferes with the return to healthy nutritive action, and should be avoided.

6th. That opium alone, or as its alkaloid, morphia, is also a valuable remedy in pneumonia, either combined with ipecacuanha, as in Dover's powder, or with antimony, when that is admissible; that it acts possibly by diminishing the frequency of the respiratory act, by its action on the nervous system, increasing diaphoresis, when combined as just mentioned; quieting the nervous system, relieving pain, and diminishing the excitability of the bronchial tubes.

7th. That while in some cases general or local bleeding may be called for, such are exceptional cases now; and that many instances, on the contrary, require the liberal administration of nourishing diet, and in some cases stimulants, as Case 7.

8th. That each case must be judged of by its own peculiarities; and whilst many, from their age and other circumstances, will probably recover under most varied treatment, other cases, of which I might adduce many instances, almost invariably die,—as those arising in persons of very intemperate habits, or where it follows in the course of pyæmia and allied conditions.

We have thus sought by these instances to show, that whilst calomel and antimony are sometimes of value, much more frequently they may be dispensed with altogether in cases of acute pleuro-pneumonia, rapidly advancing to consolidation of the lung, where, a comparatively short time ago, these remedies would certainly have been prescribed.

22, Wimpole-street.

ON THE ARTIFICIAL TYMPANUM.

By JAMES YEARSLEY, Esq.
Surgeon to the Metropolitan Ear Infirmary, &c. &c.

As time wears on the discovery of the wetted cotton—or artificial tympanum, by which name it is now known—cannot fail to engage more and more the attention of philosophic minds. The fact of a fellow-creature, known to have been deaf from infancy, and from a supposed incurable condition, namely, "loss of the drum of the ear," suddenly walking forth among his friends hearing like themselves—whilst presenting a living testimony of the success of the treatment—offers a phenomenon which cannot fail to strike the beholders with surprise and astonishment. Then to find that this apparently miraculous relief is produced by the most simple means, adds to the interest created by such a triumph of art.

Having originated this method of treatment, it cannot but be gratifying to me to see the subject followed up, and testimony borne to its merits by my contemporaries, and although differences may arise as to the theory of the treatment, and even as to the material to be employed, I may congratulate myself on having a collaborator so industrious and persevering as Mr. Toynbee.

I accept, therefore, with thanks the instalment of justice which has been tendered to me by that gentleman in his supplementary lecture, published in the *Medical Times and Gazette* of Nov. 21st, No. 386. Had his recognition of my claims to an important discovery, and his obligations to that discovery with reference to his own appliance been made at an earlier period, neither his friends nor mine would have held him in less estimation for his candour and liberality, whilst much unpleasant feeling would have been saved between those who, though competitors in the race for fame, need not and ought not, to be enemies. I have said an "instalment of justice," because until Mr. Toynbee embodies in his pamphlet on the Artificial Membrana Tympani, in his paper published in the Transactions of the Royal Society, and in his paper read before the Medical and Chirurgical Society, the pre-existence of a similar mode of treatment, having similar objects, and until he places at the disposal of the Council of the Society of Arts a certain medal awarded to him for a discovery made by another, he cannot be fairly said to be free from the imputation of disingenuous conduct towards me. The readers of the papers adverted to could never suppose that the Artificial Membrana Tympani is a mere substitute for another substance which had been proposed, and for years previously successfully adopted by one of the writer's contemporaries; but such is the fact, as is now by the force of circumstances admitted by Mr. Toynbee. Ambitious of a niche in the Temple of Fame, and firm in the conviction that the day will come, when the importance of my discovery will be recognised beyond the circle of my patients, and rank with the greatest of the age, I can lay my hand on my heart, and solemnly declare that I have dealt with it from the first, in all honesty, and without the slightest reservation. I have never made the slightest secret of the remedy; at the fitting moment, that is when its value had been fully tested, I divulged it to the Profession, and my doors have been ever open to my brethren to witness the practical illustration of the fact. Finally, I beg to assure Mr. Toynbee, who alone has insinuated the contrary, that at the time I published my papers in the *Lancet*, in July 1848, I was not aware that any confirmation of my views existed in the works of Itard, Deleau, or Tod; and in searching for, finding, and myself calling atten-

tion to such confirmation, in the works of the two first named authors, I little thought that any contemporary would be found so ungenerous as to take advantage of the information given him, to question the originality of my idea, and the treatment founded thereon.

The remarkable passage from the work of Mr. Tod, came to light years afterwards; and it is astounding that he did not take advantage of so important a fact, but that neither he, nor Itard, nor Deleau adopted it in practice, is most certain—whilst from Mr. Tod I actually received congratulations on the valuable discovery I had made.

Having thus cleared away the personalities of the subject, I now come to the respective merits of the original method of the wetted cotton, the substitute proposed by Mr. Toynbee, and the theories advanced by each of us in explanation of the *modus operandi* of the treatment.

Thus stands the case:—

1. I claim to have discovered a new principle of treatment applicable to cases of deafness, attended by perforation of the membrana tympani. Whatever be the material employed, whether it be cotton wool, sheep's-wool, sponge, gutta percha membrane, vulcanised india-rubber membrane, a piece of bacon-fat, a piece of stick, or a piece of whipcord, each of which has been found more or less successful; this claim cannot be invalidated.

2. I claim for moistened cotton-wool a superiority over all other substances, as the best material to be used, for the following reasons:—1. It is more easily applied. 2. It is simple, safe, and cleanly. 3. It retains its proper position longer. 4. It causes no irritation, but, on the contrary, a feeling of comfort. 5. It produces no noises in the ear in the acts of eating or talking. 6. It *cures* the discharge of the ear which generally attends loss of the membrana tympani. 7. It produces the highest degree of hearing of which a patient with perforated tympanum is susceptible. With respect to the substitute of Mr. Toynbee, I speak more upon the evidence of patients than my own, for I confess to have little experience of its use, common sense having raised up in my mind insuperable objections to its adoption. Upon that evidence I affirm—1. It is *not* easily applied. 2. It is rude in its construction, rough when applied to the sensitive walls of the meatus, and unbearable in the great majority of cases to the patient. Of this Mr. Toynbee must be well aware, when he recommended that at first it should be only worn for half an hour at a time. 3. It is constantly falling out of its place. 4. It is a frequent source of irritation and annoyance to the patient, to which very few will submit. 5. It produces noises in the ear on any movement of the jaw, such as in eating or talking, which is a great source of complaint. 6. It keeps up, instead of *curing*, the discharge which attends upon cases of perforated membrana tympani. 7. Whilst all these objections obtain, I am prepared to concede that it as capable of producing the desired effect as the wetted cotton or any other material.

3. I maintain that to be successful, the orifice in the membrana tympani must neither be filled in nor completely covered by the cotton, and that an opening must be left along the walls of the meatus, down to the site of the membrana tympani. The only author who has written upon this question is Mr. Pilcher, and here is his opinion:—"In my experience, the more complete closure of an aperture in the ulcerated membrane by Mr. Toynbee's artificial membrane has not been attended with such useful results as the imperfect closure by the wetted cotton introduced by Mr. Yearsley. (*Page* 28, *On the Physiology of the Tympanum.*) It is frequently very difficult to demonstrate the fact of incomplete closure of the perforation after the cotton is put in its proper position, though in almost every case you can, by the aid of the speculum, see that the remaining membrane is not covered; but I submit that the facts advanced in another part of this paper, added to the testimony of patients, are amply sufficient to prove that a closed cavity is not a *sine quâ non* for success.

4. I believe that the theory of the *modus operandi* is as follows:—The partial loss of the membrana tympani deprives the ossicula of their natural support and tension; the cotton-wool is so adjusted against the remaining portion of membrane as to afford the necessary support to the ossicula; and then the waves of sound break upon the cotton, cause the membrane and chain of bones to vibrate, through which the impulse is conveyed onwards to the fenestræ, to the expansion of the auditory nerve in the labyrinth, and finally to the brain. I will mention one fact in support of the non-closure theory. Many a time and oft have I, in my attempts to find the desired spot on which to place the cotton, produced the improved hearing only so long as the point of my probe was in contact with the ruptured membrane. The probe being withdrawn, the effect ceased. Now Mr. Toynbee will not venture to assert that in this manipulation I produced a closure of the cavity. I am very much inclined to think, and it is worthy of experiment, that Mr. Toynbee's patients would find his instrument as effectual *minus* the vulcanized membrane.

5. Any substance will produce the desired effect if applied so as to support the remaining portion of membrane or the ossicula, but cotton-wool is the best, for the reasons already assigned.

Of Mr. Toynbee's want of precision in quoting my published opinions and in stating facts, I have before had occasion to complain. In the supplementary lecture which calls forth this rejoinder, I am sorry to see he has again committed himself in both these respects, as I shall now show. He commences by saying that, "In the year 1838, Mr. Yearsley published a pamphlet entitled," etc. It may be a typographical error, but it should have been in 1848. Then he goes on to say:—"Having found a patient with perforate membrana tympani greatly improved by the introduction *into the orifice* of a spill of wet paper, Mr. Yearsley ingeniously suggests the insertion of a piece of cotton-wool *into the orifice* in all cases of perforate membrana tympani." Now, this absence of precision in stating a fact is the more remarkable, for, in the very next paragraph, Mr. Toynbee quotes from my pamphlet the following sentence, which truly expresses what is necessary to be done, and that the very opposite of what the lecturer had just stated:—"A small piece of wool, differing in size according to the case, and fully moistened in water, is introduced through the speculum to the bottom of the meatus, and adjusted superiorly, inferiorly, anteriorly, or posteriorly, according to the situation of the perforation, and other circumstances connected with the case; but *care must be taken* that the *entire* opening *be not covered*, otherwise the experiment will not succeed."

In the next paragraph we have admissions which should have been made years ago—namely, Mr. Toynbee "has not the slightest hesitation in saying that Mr. Yearsley's statements (for he *believes* he had not then seen Mr. Tod's), were most valuable and suggestive to him; and it is of course *possible* that, but for Mr. Yearsley's paper, he might not have invented the artificial drum!" Why this tardy admission? Can it be that Mr. Toynbee is painfully aware that the cotton-wool remedy is universally in the ascendant, whilst the substitute of vulcanised membrane is rapidly on the wane? Is it that by getting up a controversy on the subject, he hopes to resuscitate its declining fortunes? It may do so for awhile, but Mr. Toynbee may take my word for it, that the career of the artificial membrana tympani will at the most be brief, whilst the cotton-wool treatment will last for ever. For fifteen years its success has been tested and proved. For that long period I have patients who have never ceased to use it, and who experience the same inestimable advantage from it as they did on its first application.

My theory as to the *modus operandi* of the cotton-wool has been stated; now let us examine into the opposing theory of Mr. Toynbee. He contends for *a closure* of the perforated cavity of the tympanum as essential to success, whether by means of the wetted cotton, or its substitute of vulcanised membrane. He says that "in cases of perforate membrana tympani, the sonorous undulations must escape into the external meatus, and by commingling with those still entering, they would not only impinge too faintly on the membrane of the fenestra rotunda for the perception through the nervous labyrinth of the more delicate sounds, but distinct hearing would be rendered impossible by the commingling and jarring of the tympanic vibrations with those advancing from the meatus." To obviate this state of things, he was led to suggest and adopt the artificial membrana tympani, "its main use being turned to the confinement and concentration of the vibrations."

With respect to this ingenious theory, I have one observation to make, and I submit that it is alone sufficient for its subversion. Every patient with perforated drum has the sense of hearing to a greater or less extent; but whatever degree of sound passes onwards to the brain, passes in a natural state, though deficient in volume, but without any confusion

from the commingling or jarring occasioned by antagonism of sounds going in and out of the meatus. Mr. Toynbee, doubtless, like myself, has often met with patients who have complained of sounds in a certain key striking upon their ear, jarring, cracked and broken; but in these cases the membrana tympani has always been intact, or at least imperforate. I have never myself heard it complained of in the case of perforated membrane.

Mr. Toynbee has quoted the names of gentlemen, who, he says, are converts to his views; but I cannot allow the testimony of Mr. Toynbee's friends to be of any value when my remedy is in question, and Mr. Toynbee the operator, because that gentleman, never having seen me manipulate, cannot be expected to introduce the remedy with that tact and ability necessary at all times for success. To this, indeed, I am disposed to attribute the discrepancies of opinion which we exhibit before the world.

It may be that we have neither of us yet arrived at the true explanation of the phenomena involved in the treatment; but I must be allowed to retain my conviction that the theory I have advanced is the true one, until some other more reasonable is proposed. It is no slight evidence of its correctness that every patient upon whom I manipulate, and whom I teach the mode of applying the cotton, falls into my view of the question. The testimony and experience of patients using the remedy must be considered as valuable, if not conclusive. To aid in the solution of the question, therefore, I have addressed a note of inquiry to a few of my patients, and here append their replies. (a)

I cannot help being amused at the challenge now offered by Mr. Toynbee to settle the points in dispute between us in a society of Medical men, when it is remembered how he ignored a similar challenge emanating from myself, which appeared in the *Medical Times and Gazette* so far back as June, 1857, page 576, in the following words:—"Not only with respect to this question of a closed or open cavity should unanimity prevail, but also as to the best material or appliance to be used. Of the preference to be given to the cotton-wool I am quite assured—others may differ with me. I am willing, therefore, and indeed desirous, to submit the matter to any competent tribunal of Medical men or commission of inquiry, to decide these questions.

Mr. Toynbee has favoured the readers of the *Medical Times and Gazette* with *his* explanation of the *modus operandi* of the cotton-wool when successfully applied. He says:—"The water in the interstices of the cotton fibres acts as the successful air-bubble did in my own patients, by receiving the sonorous vibrations, conducting them to the air in the tympanic cavity, and confining them there for concentration on the membrana fenestræ rotundæ." On the contrary, I contend that one of the chief ends obtained by the presence of the cotton, is, firstly, to rupture the air-bubble (indicated to the patient by a distinct *click*, and which may be heard by a bystander); and, secondly, to prevent the reformation of bubbles of air in the discharge in and around the perforated membrane. It was by breaking this bubble of air that my patient from New York effected temporary improvements in his hearing. It is by the same means that patients with perforated tympana can improve their hearing for a few minutes, and sometimes for a longer time, by forcing air up the Eustachian tube and through the perforated membrane. In short, this said bubble of air is another difficulty in the way of Mr. Toynbee's theory of the closed cavity. I find in practice, that when in applying the cotton I produce a *click*, success is instantly attained.

Mr. Toynbee would have it supposed that there are not many difficulties in applying the cotton or artificial tympanum to an ordinary case. Such has not been my experience, and I must still maintain that those patients will always fare best who have had the advantage of skilful and experienced teaching in a nice adjustment of the wetted cotton. In fact, I can conscientiously reiterate, that, "simple as it would appear, it is an operation requiring the most delicate tact to manipulate with success, which great experience only can confer."

That the subject may be well considered and discussed, I have arranged to resume my Practical Demonstrations at my residence on the first and third Wednesday in every month, commencing December 16th, at two o'clock, on which occasion it will give me pleasure to see Mr. Toynbee, or any member of the Profession interested in the inquiry.

(a) The correspondence is too voluminous for publication; but we may state that Mr. Yearsley's inquiry of his patients is as follows:—"In applying the cotton remedy, do you still find it necessary to adhere to my plan of placing it at the end of the passage of the ear on one side, so as to preserve an opening down to the tympanum, or do you cover the perforation entirely?"—to which his patients respectively answer:—1. "I apply it to the end of the passage, and on one side only. Were I to cover the passage entirely, I should be more deaf than I naturally am." 2. "If I do not introduce the cotton down the passage of my ear, and place it on one side, I find it to be worse than useless." 3. "I find it to have the desired effect by placing it on one side only, so as to preserve an opening down to the tympanum." 4. "I still apply the cotton remedy as at first applied by you, at the side and at the end of the passage." 5. "I do not cover the external part of the drum, but I place it sideways towards the back, leaving a small opening." It is not very clear, however, how far the patients understand the difference between the meatus and the opening in the membrana tympani. If they fill the meatus with cotton, of course they cannot hear; and it is not easy for any person to close an opening in his own membrana tympani partially.—Ed.

ON THE ADMINISTRATION OF COD-LIVER OIL, AND SUBSTANCES SOLUBLE IN IT, IN CAPSULES.

By T. SPENCER WELLS, F.R.C.S.

I have very frequently found after ordering cod-liver oil, that the patients have objected very much to its unpleasant flavour. In many cases they have been quite unable to overcome their repugnance to it. In other cases the nausea it has produced has led me to discontinue it. This has been still more often the case when giving quina, or iodide of iron dissolved in the oil. Yet the effects of these solutions, when borne, have been so very beneficial that I was most anxious to overcome the objections to their use on the score of flavour. Some months ago it struck me that there was no reason why the oil should not be taken in capsules like copaiba. I accordingly asked Mr. Bastick, the druggist in Brook-street to whom we are indebted for our knowledge of the solubility of so many substances in cod-liver oil, to have some of the oil with quinia put up by Messrs. Evans and Lescher in their membrane capsules, as I had found their copaiba capsules preferable to any others I ever tried. This was done at once, and Mr. Bastick has for some time past supplied many of my patients with membranous capsules containing cod-liver oil only or holding in solution quina, the iodide of iron, and the biniodide of mercury. Each capsule contains twenty minims of the oil, and the dose of the quinia, or iodide, may be varied. Patients who object very much to the oil, think nothing of taking three, or even half a dozen capsules three times a day.

The combination of biniodide of mercury with cod-liver oil is particularly useful in some of the chronic syphilitic superficial diseases of the skin and mucous membranes. A tenth or twelfth of a grain with a drachm of the oil in three capsules three times a-day, I have found to answer admirably in cases of chronic pityriasis and psoriasis, with superficial ulceration of the fauces. In some of the chronic joint affections of scrofulous subjects, the iodide of iron given in the same way, but in larger doses, is also very efficacious. When it is desired to give iron in the oil without iodine, and to give larger quantities, the wafer-paper so much used for taking the cubeb and copaiba paste answers extremely well. A paste may be made of the sesquioxide of iron—the so-called carbonate—by mixing up with it a sufficient quantity of the oil. A tea-spoonful of this paste, enveloped in wetted wafer-paper, is swallowed without the least difficulty or unpleasantness by any one who can take a pill.

In many cases of secondary syphilis in persons of broken-down constitution, it is desirable to combine the iodides of mercury and iron. In this combination the iodide of mercury becomes soluble, and it may be given either in the oil in capsules, or in the form of a very elegant syrup which Mr. Bastick prepares. In prescribing this, however, the ordinary dose of the iodide of mercury must be considerably lowered, as the action becomes much more powerful when the salt is made soluble. The syrup is prepared of various strengths; but in the proportion of a quarter of a grain of the iodide of mercury to two grains of the iodide of iron in a drachm of syrup, it will be found extremely useful, and not very disagreeable.

I offer no apology for endeavouring to make these preparations and capsules better known, as I am sure they are very useful additions to our present means of treating disease successfully.

3, Upper Grosvenor-street.

THE LONDON

PRACTICE OF MEDICINE AND SURGERY.

REPORT ON THE TREATMENT OF PROLAPSUS UTERI.

(Continued from page 552.)

GUY'S HOSPITAL.

PLASTIC OPERATIONS FOR PROLAPSUS UTERI.

(Cases under the care of Dr. OLDHAM.)

Dr. Oldham has had the operation for extending the perinæum performed in five cases under his care in Guy's. In one of these, an elderly, stout, and very feeble woman, much constitutional irritation followed, and very little union resulted. In the four others union of the whole length of the denuded parts followed, and in all great relief resulted to the prolapsus. In three of these five there had been more or less of laceration of the perinæum, and in all the patients had borne children. In none of these was any division of the sphincter ani practised. Dr. Oldham entertains a high opinion of the value of the operation, and intends, we believe, to employ it much more frequently in future.

The following case, which is one of those above alluded to, is worthy of being given in more detail, as it exemplifies the exact nature of the operation performed in most of them, and also shows that the benefit afforded has been lasting. We give it from the notes of Mr. Hall, the resident obstetric assistant at the time, by whom, at Dr. Oldham's desire, it was practised.

Case 4.—*Procidentia Uteri after slight Laceration—Division of the Tendon of the Sphincter without benefit—Plastic Operation—Cure.*

Sophia Hall, aged 22, admitted August 1, 1856, under Dr. Oldham. She is unmarried. About four years ago, after a quick labour, she was delivered of a living male child. For four weeks afterwards she was confined to bed by an abscess in the breast. On sitting up at the end of this time, procidentia uteri occurred, and has continued to the present. She was admitted into Guy's in July, 1854, and the coccygeal attachment of the sphincter ani divided, but without benefit. Since then she has worn a perineal support, but with little advantage. At her present admission, the uterus, with the anterior and posterior walls of the vagina, protrudes almost entirely from the vulva. The uterus is much enlarged, but the os is not ulcerated. All the parts are very flaccid. There is no prolapsus ani. She menstruates regularly, and expects to be unwell August 28. Her general health is very good, except that she is very hysterical.

August 14.—The bowels having been previously emptied by a soap enema, the lower part of each labium was pared by a scalpel for an inch and a half in length and a quarter of an inch in breadth. The denuded surfaces were brought into perfect apposition by the quill suture, with the aid of three interrupted sutures. Warm water dressing was then applied and a T bandage. The knees were also brought together by a bandage. During the operation the patient was placed under the influence of chloroform, and immediately afterwards two grains of opium were given to keep the bowels from acting. The catheter to be passed twice daily. Diet, beef tea and arrowroot.

18th.—Interrupted sutures removed.

19th.—Quill sutures removed. The parts seem healed by the first intention. There is considerable purulent discharge. The vagina to be daily syringed with warm water. The catheter as before.

24th.—The bowels have acted twice.

28th (2 weeks after operation).—The parts have completely united. There is an aperture to the vagina an inch in length. The os uteri is found three inches from the vulva. The syringe and catheter to be discontinued. The patient permitted to walk about. Liq. plumbi pro inject.

Sept. 27.—Menstruation commenced this morning after an interval of eight weeks. The os uteri is half an inch from the vulva.

Dr. Oldham informs us that up to the present date this patient has never been troubled with any external prolapues.

One of the features of interest in the above case is that an ingenious, though we fear not very useful operation, proposed some years ago by Mr. Hilton, had previously been performed. It consisted in the subcutaneous division of the central tendon of the sphincter ani, and is described in detail in a paper in the eighth volume of the Guy's Hospital Reports (Second Series) by Dr. Lever. In describing his operation Mr. Hilton writes, "Remembering that the levatores ani have one firm and fixed attachment to bone near the arch of the pubes and another at the coccyx, and that the external sphincter ani might be regarded anatomically nearly in the same light in relation to its effects upon the injury to the perinæum, and bearing in mind that all muscles contract towards their more fixed point, no matter how that fixity of position may have been acquired, it occurred to me, if I could, by a simple and uncomplicated operation, disengage the coccygeal attachments of the levatores ani, I might allow them to retract the anal aperture and adjacent structures in a direction towards the pubes, as it were to bury the perineal injury deeply in the pelvis, thus enabling the lower fibres of these muscles, (which blend with the muscular parietes of the vagina, rectum, and perinæum,) to assume the office of a sphincter to the lacerated opening by approximating the edges of it and drawing it upwards towards the pubic arch. In reference to the external sphincter ani, I concluded that by taking away or separating the coccygeal fixed point of that muscle I should necessarily change the direction of its contractile power from the coccyx towards the vagina and thence towards the pubes; this I hoped would help to occlude the lacerated opening between the vagina and rectum." "The method of operating was as follows:—A narrow, sharp-pointed knife was introduced through the skin on one side of the point or extremity of the coccyx, about half or three quarters of an inch from its end; it was then passed into the pelvis, between the concave surface of the coccyx and the rectum, special care being taken not to puncture the intestine; the cutting edge of the knife was now made to sweep over the sides and end of the coccyx, so as to separate from it the coccygeal attachments of both the sphincter and levatores ani."

The objection to this procedure is, that union of the divided tendon would very shortly follow, and would tend to restore the condition of things to very nearly what they were originally. Further, in a bad case in which the uterus was swollen and heavy, that it would be effectual in affording even temporary relief, is scarcely probable. It has, indeed, we believe, fallen into disuse even with its originators, and we are not aware that it has ever been practised by others. As an expedient well worth having recourse to in plastic operations after extensive laceration, the division of the sphincter tendon must however certainly rank as a very valuable suggestion. It is a milder and less dangerous plan than making deep gashes in the belly of the sphincter from the anus, as advised by Mr. Brown, and would probably secure a yet better relaxation of parts.

KING'S COLLEGE HOSPITAL.

PLASTIC OPERATIONS FOR PROLAPSUS UTERI.

(Cases under the care of Mr. FERGUSSON.)

During the last six months Mr. Fergusson has performed plastic perinæal operations for the cure of prolapsus in about five cases, and in all with successful results. In some of these he did not employ the quill suture, but was content to unite the parts only by deeply placed interrupted sutures, a plan originally pursued by Dieffenbach. In none of these cases have any ill effects followed, and Mr. Fergusson entertains, we believe, a high estimate of the value of the procedure. On account of the cases all being recent, they do not offer any evidence of value as to the permanency of the benefits obtained.

UNIVERSITY COLLEGE HOSPITAL.

PLASTIC OPERATIONS FOR PROLAPSUS UTERI.

(Cases under the care of Mr. ERICHSEN.)

The remark just made above applies equally to Mr. Erichsen's cases. All of them are of quite recent performance, and, therefore, teach nothing as to the great point under debate, the

lasting nature or otherwise of the results. Mr. Erichsen informs us that, on the whole, he thinks well of the operation, and does not believe that it is attended by any immediate danger. He remarks, however, that he has seen very abundant hæmorrhage come on some hours after its performance. This remark we can fully support. In one of Dr. Barnes's cases at the Metropolitan Free, the hæmorrhage on the next day was very profuse indeed, and lasted, in spite of the free use of ice, the exposure of the patient, etc., for some time. We are acquainted also with other examples of the same occurrence to a less extent. It is probably to be accounted for by the abundant vascularity of the parts. Every Surgeon knows that no part of the cutaneous surface of the body is so liable to bleed freely after incision as the scrotum; and the skin of the female genitals seems to be almost equally prone to hæmorrhage. We have known twenty ligatures required after excision of a soot cancer of not very large size; and in another case a man, under the care of Mr. Lawrence in St. Bartholomew's, bled a few hours after the same operation, until his condition of prostration was quite alarming. Lacerated wounds of the labia or vagina also often bleed most freely. The Surgeon must, therefore, be prepared for this accident after plastic operations on the perinæum. It must be remembered, however, as a set-off against this liability, that it is to the abundant vascularity of the parts that the speedy union and the freedom from tendency to slough and to other ill-conditions of the wound in these operations, are mainly due.

In one of Mr. Erichsen's cases death followed, but it was dependent upon an internal strangulation of the bowel, from which the woman had on a previous occasion very nearly died, and was in no way connected with the operation.

(This Series will be continued.)

HOSPITAL NOTES.

DISLOCATION OF THE HIP OCCURRING IN ACUTE RHEUMATISM.

Although rheumatic affections as a rule do not end in disorganisation, yet every now and then we find them doing so. Sometimes the termination is in suppuration, and at others in such softening of ligaments as allows of dislocation, but is unattended with abscess. This latter form is peculiarly liable to occur to the hip-joint. A little boy, now under the care of Mr. Cock, in Guy's Hospital, affords a good example of it. He is six years old, and always enjoyed excellent health, until about four months ago, when an attack of acute rheumatism set in. Most of his larger joints were affected, and he suffered most severe pain for some weeks. Suppuration took place either in or close to the left ankle, and the abscess had to be opened about a month after the commencement of the illness. After this he slowly recovered, and on regaining his power of moving about, to the consternation of his parents and medical attendant, it was discovered that the left lower extremity was much shorter than the other, and in fact that all the symptoms of dislocation on to the dorsum ilii were present. It should be noted that no particular attention had ever been drawn to the hip, and nothing was known as to the exact period at which the displacement had happened. The boy was now admitted under Mr. Cock, whose examination fully corroborated the opinion arrived at. There was now no inflammation about the hip, and the head of the bone could be easily felt in its abnormal position. Mr. Cock deemed it worth while to try whether reduction could be effected, and for this purpose chloroform was given, but without any advantage being gained as to replacement. The boy is to leave the hospital shortly, as nothing can be done, and he will in all probability have a good share of use of the limb, though its shortening will of course be permanent. The rationale of the class of cases of which the above is a good example, is probably somewhat as follows: — Considerable effusion of serous fluid takes place into the joint, thus relieving it entirely from atmospheric pressure, and tending to throw the head outwards; this continuing for some time, the ligaments, especially the teres, become gradually elongated and softened. To relieve pain the patient lies with his knee bent over the opposite for considerable periods at a time, and under this favourable combination of circumstances, perhaps during a turn in bed, or other motion, the bone is jerked out of its socket by muscular action.

EXCISION OF THE KNEE-JOINT FOR RECTANGULAR ANCHYLOSIS.

On Friday week Mr. P. Price removed the left knee-joint of a lad, aged nineteen years, at the Great Northern Hospital, for rectangular anchylosis of sixteen years' standing. The history of the case leads to the belief that the condition assumed by the limb was the joint effect of injury and disease, which took place at the early age of three years. The lad had always been a cripple, carrying his leg flexed at a right angle to his thigh. The tibia was dislocated behind the condyles of the femur into the popliteal space; bony union maintaining the two in apposition. The entire limb was much smaller than its fellow, owing to its long disuse. Although so considerable a difference existed between the proportions of the two extremities, Mr. Price thought that an useful limb might possibly be gained by resecting the anchyloid ends of the bones, and bringing the tibia into a line with the cut surface of the femur. This was effected, and should the patient do well it will be interesting to know what extent of use may be obtained in the future.

AMPUTATION AFTER EXCISION OF THE KNEE-JOINT.

Mr. Cooper Forster has at present under his care in Guy's a lad in whom excision of the knee-joint was performed about six weeks ago, and amputation subsequently became necessary. He has done remarkably well, after the latter operation and as the resection was at the time of its performance the only alternative of amputation, nothing has been lost by the attempt made to save his limb. After the excision the limb was confined for three weeks in the straight position, and seemed to be doing fairly. During dressing and change of splint, however, it was displaced, and no efforts to put it right again were successful. From the large sinuses which remained and the profuse suppuration, it was evident that the ends of the bones were still carious, and although the lad kept up his strength fairly it was deemed best to anticipate a worse state of exhaustion by amputation. On examination of the parts afterwards the extremities of the bones were found covered with loose flabby granulations. Thus the cause of the failure of the excision in this instance may be classed as "deficient power of reparation."

TUBERCULAR DISEASE OF THE LOWER LOBE OF THE LUNG.

An interesting example of tubercular disease, occurring chiefly in the lower lobe of the left lung, has just occurred in the practice of Dr. Johnson at King's College Hospital. The patient, a young man, was admitted with evidences of complete solidification of the affected lobe, which were gradually superseded by those of softening, and of the formation of a cavity. At the same time there were no physical signs of disease in either apex. His illness, from the commencement to the fatal event, was only two months. The autopsy confirmed the diagnosis, and showed a tubercular cavity surrounded by much consolidation in the lower lobe, while only a few scattered miliary deposits existed in the apices. Dr. Johnson remarked that the disease had in all probability been localized by an attack of pneumonia, on which the tuberculisation had supervened, constituting what some had designated "strumous pneumonia." The occasional limitation of tubercular disease to the lower lobes of the lung is a circumstance which should always be borne in mind in dealing with obscure cases. In hospital and dispensary practice, especially where large numbers have to be seen in a short time, it is too much the routine to examine only the infra-clavicular regions.

EFFUSION OF LYMPH ON THE RETINA, IN CONNEXION WITH HEREDITARY SYPHILIS.

Retinitis, as an isolated affection in connexion with constitutional syphilis, although an acknowledged disease, is of exceedingly rare occurrence. There is little doubt but that some degree of congestion of it in common with the vascular tunics is by no means rare in severe cases of iritis. Indeed, Dr. Jacob of Dublin has insisted, and with some show of reason, that what is usually spoken of as acute iritis is an inflammation of most of the tunics of the globe. If, however, pure syphilitic retinitis be a rare disease in the adult, it is yet more so in the infant; and we doubt indeed whether the follow-

ing case have any parallel on record. Frederic C. B., aged 15 months, is now attending the Moorfields Hospital, under Mr. Critchett's care. His mother brought him on account of his appearing to have very little power of distinguishing objects, and because his sight did not improve as he got older. She was doubtful whether he had ever been able to see well. His eyes, to the unassisted sight, presented nothing whatever abnormal. The irides are clear, and the pupils round and free. No inflammation of the front parts was ever known to have occurred. On examination with the ophthalmoscope there was easily seen in the left eye a large patch of greyish white lymph, effused on the surface of the retina. This patch occupied chiefly the outer side, and had abrupt boundaries, but the whole retina was unduly pale. In the other eye the condition was much less advanced, but numerous small dots of lymph were distinctly visible. The child appeared to suffer no inconvenience from light being thrown into the eye. The evidence as to the disease being of syphilitic origin was the following:—the mother had herself had the symptoms of constitutional syphilis since her marriage; her first two infants had been born dead, and the third had lived but half an hour. The patient (her fourth) was a fine baby when born, but at the age of three weeks began to suffer from snuffles, and had "a dreadful discharge from the nose." At the age of three months he had a sore mouth, and an eruption on the nates and body, for which he was treated by the late Dr. Rees, who stated that he considered the disease of venereal character. Thus the history seems quite conclusive. Mr. Critchett is inclined to fear that the effusion of lymph in the retina took place some time back, and that there is but little hope of now procuring its absorption. The infant is at present quite free from other symptoms, though presenting the physiognomy of hereditary syphilis.

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Medical Times & Gazette.

SATURDAY, DECEMBER 5.

THE FOOD GRAINS OF INDIA.

At the Society of Arts, on Wednesday, November 27, Dr. Forbes Watson, of the East India Company's Service, read a most valuable communication on the food grains of India. The labour was prompted, we believe, by Dr. Watson himself, but it is due to the East India Directors to say that they received the suggestions of their learned officer with favour, and allowed him the wherewithal to conduct his important researches.

In the paper read at the Society of Arts, Dr. Watson gave but an instalment of his grand general design. In this paper he tabulated the compositions of a large number of Indian cereals and pulses, pointing out from their compositions their relative values as food, the proportions in which some of them should be combined to secure a nutritive diet, and explaining that the greatness of India depends on her agriculture, and that for her future progress and success reliance can only be placed on the improved condition of her soil.

In the course of his observations, Dr. Watson supplied various facts of detail and argument which, if better known, would tend to displace many false opinions commonly held here, in regard to the diet system best adapted to the Indian climate.

As a mixed diet has been declared essential to man, so the grain-fed inhabitant of the East carries this rule into practice in a sense as strict as when we in England add flesh or fowl to bread and potatoes. The popular notion that rice forms the entire larder of the Cooly, is incorrect. It is true that rice forms the bulk of his food; but natural instinct has taught him to add to the starch-supplying rice one or other of the pulses, in quantity sufficient to supply the requisite amount of nitrogenous element. Hence the pulses in India, of which the "Cajanus Indicus" is the most popular, occupy an important position in the food catalogue. They are, in fact, to the Brahmin what beef and mutton are to John Bull.

The too exclusive use of food in which the nitrogenous element superabounds, under the idea that such food is of greater nutritive value, is, according to Dr. Watson, with whose opinion we fully coincide, a practical error. We maintain with him that when the body is supplied with highly nitrogenized food, a proportionably large quantity of carbonaceous matter is required. Even in tropical India, where a disinclination to much fat is likely to exist, it has been found essential to add extra "ghee" or butter to the diet of prisoners undergoing manual labour; while the native of the tropics is led again by instinct to the practical fact, in preparing for food the "Cajanus Indicus" in the husked state. It is the almost universal custom to prepare this pulse by rubbing it with a little oil, by which means the proportion of the carbonaceous over the nitrogenous is increased.

Speaking of wheat as a produce of Indian agriculture, Dr. Watson made the following observations:—

"At the head of the list of cereals stands wheat, the great food-grain of this and other European countries, and one which in Central India, and to the north, as well as almost to the sea-side in Guzerat, occupies a prominent position in the agriculture of the country. Of Indian wheats, eight samples from various districts through India have been submitted to analysis, with the general result of showing a composition fully more identical with that of the wheats of Europe than is generally supposed to be the case. For it will be observed that every 100 lbs. of these European wheats contain 15 lbs. of water, whereas the Indian ones have only about 12 and a-half pounds. It consequently follows that a given weight of Indian wheat will contain more nutriment than the same quantity of European, because there is more water in the latter than in the former; although, if we drive off the whole of the moisture from both, and make the quantity, in either case, up to 100 lbs., it will have the effect of showing a slightly larger proportion of nitrogenous matter in the European. In the average statement, the proportion of non-nitrogenous to nitrogenous, is within four-tenths of the standard 6 to 1, which nature has apparently settled to be the relation demanded by the requirements of the system. Upon this showing, the whole grain of wheat would require to have a proportion of starchy or fatty element added, in order to dilute or bring it down to the true proportion,—a thing, by another mode, accomplished by the sieve separating the more highly nitrogenous bran from the flour."

"With regard to practical qualities, arising from the physical condition of the grains themselves. a word may be said, as it bears on the question of the suitability of Indian grain for the markets of England, a point which Dr. Royle has fully discussed. The Indian are, as a rule, what are called 'hard wheats,' in which the outer portions, consisting of a very dense substance, are difficult to reduce to fine flour—indeed, proving so detrimental to the mill-stones themselves, that our millers reject them for this cause alone. But the whole question of the practicability of the introduction, at a suitable profit, of Indian wheat into our European markets, supposing,—which appears to be the case—that the original cost in India and the expense of freight to this

country would permit of this, is, for the present, settled by the weevil, a small insect, specimens of which, I dare say, can be detected amongst these samples, although some have in order to destroy them been subjected to nearly the heat of boiling water. The destructive powers of these little creatures, from their numbers, are enormous. Many of the cargoes of wheat attempted to be introduced into this country have been thus all but completely spoiled, and our grain merchants are naturally very loth to admit even partially damaged cargoes into their granaries. These insects are not destroyed by any amount of heat which can practically be applied to wheat in the mass. Cold seems the only means by which they can be removed."

The millets, in the opinion of Dr. Watson, hold a superior position as food to rice, representing better the proportion which should obtain between nitrogenous and carbonaceous food. The Indian millet, called "Bajra," stands at the head of this list, since it contains about ten and a-half per cent. of gluten, and yields a proportion between the carbonaceous and nitrogenous compounds of from seven to seven and a-half of the former to one of the latter. In relation to rice as a food, he then observed:—

"Rice is very largely employed, and certainly is a most important article of diet, but its chief property, in one sense, may be called negative. It plays the part of a diluent to highly nitrogenised compounds, and affords the bulk which seems essential to the formation of a wholesome diet. Rice is therefore rarely eaten alone; and when it is so, only from compulsion, as occasionally amongst some of the poorest classes in Arracan and adjoining districts.

"Viewed with reference to the wants of the system, it will be observed that the proportion of carbonaceous matter to plastic, which it contains, is nearly twice as great as it ought to be. In order to afford, from my own laboratory, the means of comparing it with others, the vaunted Carolina rice has been subjected to analysis, and the result is that in point of plastic power it would have stood at the top of the list, but for the Bengal variety of rice, called *Bansmutti*."

Among the pulses, Dr. Watson takes the "Cajanus Indicus," the favourite pea of the country, and after that the "Cicer Arietinum," or Gram, as the most nutritive of the Indian vegetable food, inasmuch as in these the two great classes of body-sustaining elements, carbonaceous and nitrogenous, approach nearest to the standard mixture of "six to one." He suggests the propriety of introducing these two substances into this country. There are many cases, he adds, "in which an easily digested pulse would prove of great service, and it will probably be found that these two ground into flour will, in point of efficacy, far exceed the Egyptian lentils, for which in various forms the public has to pay so much.

"Gram is the great horse-food of the country, and I believe that, used along with a fair proportion of hay, etc., as a diluent, there does not exist in any country an article for such a purpose of equal value." In the form of 'doll' it is parched, and on the voyage, or under circumstances which prevent (according to his view) legitimate cooking operations being carried out, it forms almost the entire food of the Sepoy.

"These pulses, in varying proportions, are cultivated throughout the whole of India, and their importance, as constituting the chief source that furnishes the plastic or muscle-element to a very considerable portion of the inhabitants, cannot be overrated."

Of the starches, embracing arrow-root or sago, Dr. Watson's tables tell an unfavourable story. In these nutritive power is at its minimum, in so far as the plastic wants of the system are concerned. The "plaintain meal," which contains most of the plastic food, is not far from being one-half less nutritive than rice, containing, as it does, as much as eighteen per cent. of carbonaceous to nitrogenous matter.

We have placed these researches of Dr. Watson thus, in brief, before our readers, not only as the narrators of passing events, but as being anxious not to be behind our lay contemporaries in recognising and in according our full appreciation of the labours for the public weal of a member of our own body. Since the time when Magendie and Liebig pointed out the scientific meaning of food, in their physiological relations, no such laboured and comprehensive addition to the chemistry of vegetable food has as yet been laid before the scientific world. It is almost superfluous to point out to what useful purposes Dr. Watson's analyses may be applied. The information they supply is for the nation at large, rather than for any section of it. If the whole chemical history of food were written out in the same able manner, science would teach statesmen, generals, and all classes of men, in a few simple commissariat lessons, how famine-plagues might be wiped out altogether, and how the poorest communities might be fed at a nominal cost on the fat of the land.

THE WEEK.

THE following is an exact copy of the important order which we stated in our Number of November 14 was about to be issued. It will do a great deal to raise the efficiency of the department:—

No. 177.

VICTORIA R.

2628
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Whereas it has been represented to Us that advantage would arise to Our Army from an increase in the rate of Pay of Assistant Surgeons, Our Will and pleasure therefore is, that from and after the date of this Warrant, the Minimum rate of Pay of Assistant-Surgeons of Our Army shall be Ten Shillings a day.

Given at Our Court at Windsor this 23rd day of November, 1857, in the Twenty-first year of Our Reign.

By Her Majesty's Command,

PANMURE.

The prohibition and restrictions against the import of diseased foreign cattle, hides, etc., which were enforced by order in Council during the prevalence of the murrain, have been removed by another order in Council. It is assumed that the vigilance of the other continental states will prevent the introduction of the disease from Russia and Austria, so that no diseased cattle are likely to find their way to the ports from whence we import. The mission of inquiry of Professor Simonds appears to have led to this result.

The resignation of Dr. Rigby as Physician-accoucheur to the General Lying-in Hospital will lead to the election of an Assistant Physician-accoucheur. Dr. Hutton, the present Assistant, becomes Physician, and the successor to Dr. Hutton will be appointed on the 14th inst. We have heard Dr. G. Hewitt and Dr. Vernon named as candidates.

The Pharmaceutical Society have entered upon a discussion of the provisions of the Sale of Poisons' Bill in a good spirit. A series of questions has been sent to all the members of the Society, and some 800 answers have been already received, from which valuable statistical information may be collated. A preliminary discussion took place on Wednesday, at the rooms of the Society, which were very fully attended; and from the tone of the speakers, we hope the result will be the furthering of a useful Bill through Parliament this session.

It does not appear to be generally known by students that they have to perform operations on the dead body before they can be gazetted as Assistant-surgeons in the army. All candidates, after passing their examination at Whitehall, are

sent to Chatham, where they undergo a practical examination at the bed-side and in the dead-house. We have been informed, on the highest authority, that several gentlemen have been rejected, from the imperfect manner in which they have performed surgical operations on the dead subject; and it has been a subject of regret to the Director-General that pains are not taken in the schools to ensure more practical ability among students in operating. Special courses of operative surgery are now given in several of our London schools; and we trust that an energetic effort will be made to stir up the Inspectors of Anatomy to secure a sufficient number of subjects to enable these most useful and necessary courses to be carried on effectually. The Anatomy Act is certainly worked very badly just now in London.

A correspondence has lately taken place between the College of Physicians and the Pharmaceutical Society, which has resulted in the following notice:—

"Royal College of Physicians.—The President and Censors of the Royal College of Physicians, having learned that in the manufacture of tinctures and some other preparations of the Pharmacopœia it has latterly become the practice of certain druggists and manufacturers to use methylated in the place of pure spirit, hereby declare their disapproval of such an unauthorized departure from the instructions laid down in the Pharmacopœia.—Nov. 25th, 1857."

The recent decision of Lord Campbell in the court of Queen's Bench, that the Medical and Chirurgical Society is exempted from parochial rates in conformity with the provision of the Acts 6 and 7 Victoria, cap. 36, should be borne in came within the Act of Parliament, being established exclumind by other Medical and Scientific Societies. Lord Campbell stated the law of the subject, as follows:—"The Society sively for purposes of science, literature, or the fine arts. It was established exclusively for purposes of 'science,' or, in the words of the charter, 'for the cultivation and promotion of physic and surgery, and of the branches of science connected with them.' Physic and surgery must be considered as sciences. It was said that by the bye-laws the members at their ordinary general meetings met, among other things, 'to converse on professional subjects;' but the Court would assume that the conversation of the members would be on professional subjects and advance of science to which they were devoted. It appeared that a part of the house was let off as a separate tenement. That might be rated separately; and where that was the case it would not take away the exemption of the Society."

The discussion as to the election of Surgeon to the Birmingham Hospital still continues. We have received a copy of a letter from Mr. Law, the Warden of Queen's College, in which this gentleman makes the following summary of the case:—

"The Medical and Surgical Professors recommended Mr. Gamgee as being pre-eminently qualified to fill the vacant office of Surgeon at the Queen's Hospital, and they placed Mr. West last on their list, not because he was unqualified, but because they considered him not sufficiently tried and experienced. Well, the Council met. The first on the Professors' list was in a minority, and the last was preferred. What was my impression of that meeting? That some, at all events, of Mr. West's supporters had confessedly come previously influenced in his favour; that the decision had the appearance of a want of confidence in the executive, and thus might ultimately lead to a change in the administration. Our monthly College meeting soon followed, when the Professors presented a memorial against Mr. West's election, and thus the whole matter was brought under discussion. The chief points raised appeared to me to be—1. That if one Candidate canvassed the electors, and the others did not, that one obtained an undue advantage.—2. That if members of the Council made promises independent of the Report of the Professors, such Report became useless.—3. That the practice or custom of the College elections had been violated by such canvassing and promises. It was, after much discussion, resolved to call a special meeting to examine into the facts of the case, and Mr. West and his legal adviser were requested to attend, and did attend. But when the Professors were prepared to go into the matter, those two gentlemen left the room; and thus, in my view of the matter, judgment went by default. Let me now turn to the position of the Hospital. There are three Surgeons, who hold their office for twenty years. One has just retired, and in four or five years the other two will have fulfilled their term; and then the Surgeon now appointed will become the senior. Can it be right to elect so young and inexperienced a person as Mr. West to such a post? I think not. And with all deference I regret to say I cannot be a party to such a step. However, the subscribers may think otherwise. In which case I hope a Warden may be found equally zealous and more complying than myself."

Influenza, in an epidemic form, is threatening us again, as it did in 1847. As a precursor of Cholera, this disease should be watched with peculiar interest. Diphtherite also is spreading over the country. A letter, relating cases of this disease, will be found in another column, and we may direct attention to the following letter from Dr. Rigby, from the weekly return of the Board of Health:—

"A well-marked case of Diphtherite came under my care (in private practice) last week. The subject of the disease was a lady, who had just arrived in London (Friday) from Brighton, where she felt she had 'caught a cold' the day before. She had much pleurodynic pain on coughing in the left breast; the cough was unaccompanied by expectoration; and no abnormal sounds could be detected on auscultating the upper part of the chest except that the breathing was rather dry. In a course of a few hours the breathing became much oppressed, amounting to a degree of *Orthopnœa*. The pain under the left breast had been removed by a sinapism; and inspiration, although not productive of pain, was laborious. The throat now became painful and deglutition difficult, but there was no swelling of the fauces or tonsils. The whole mucous membrane of the throat was dry and of a dusky red colour; p. 110. Another sinapism, enveloping the throat, was now applied. The patient could now cough without pain, and there was evidently plenty of mucus in the air-passages. Soon after this she suddenly coughed up two or three mouthfuls of frothy mucus, with much relief. She had two more of these seizures, which resembled vomiting, except that the matters discharged were distinctly from the lungs and not from the stomach; and in all she coughed up from *six* to *eight ounces* of this mucus. When the third expulsion of froth took place, a number of little portions of pulpy exudation could be distinctly seen. These had the appearance of little shreds, from *one-eighth* to *one quarter* of an inch across, and about *one-twentieth* of an inch in thickness. As long as they were floating in water they preserved their membranous character; but when laid hold of they were felt to be soft and pulpy. On leaving my patient's house the wind was east, and the air most peculiar. It was offensive, and yet not from any known foul odour; but it was an oppressive smell I had never before experienced. It stung my nose and throat, and since then until this morning (18th Nov.) I have myself been suffering from an attack of an *influenza character*, only far more severe than we commonly observe. I must not omit to say," adds Dr. Rigby, "that I found it necessary to feed up my patient as soon as the symptoms permitted, and feel sure that depleting measures will rarely, if ever, be required."

Siamese Ambassadors.—Their Excellencies, accompanied by Captain Clavering, R.N., and Dr. Tweedie, paid a visit to the College of Surgeons, on Tuesday last, and examined, with much apparent interest, the several departments of the Museum. The illustrious visitors were received by Mr. Lawrence and Mr. Quekett.

REVIEW.

Contributions to the Physiology and Pathology of the Blood. By George Robinson, M.D. 8vo. Pp. 273. London: 1857.

Dr. Robinson has long been known to the Medical world, not only as an accomplished Physician, but as an earnest cultivator of the science he professes, in its more difficult and experimental departments.

The volume in hand is made up of papers already published at various times by the author, with one or two additional chapters. In the first chapter, Dr. Robinson discusses the mode of production of albuminous urine in granular (Bright's) disease of the kidney. Inclining to the laws of physical physiology, and believing that the grand discovery of Harvey the Great, has not been as yet sufficiently appreciated or elaborated, he takes the physical argument in hand, and, in relation to the above-named disease, lays down the rule:—

"That the presence of albumen in the urine is produced by, and its proportional quantity is in a direct ratio to, the degree of congestion of the capillaries of the kidney, from whatsoever cause that congestion may arise."

In Part II. we find the note of a very simple but pretty experiment, showing, by appeal to the eye, the effects of suppressing the venous circulation in the frog's foot. After this there are narrated numerous experiments, on the effects of compression of the renal vessels and the aorta on the matters secreted by the kidneys. These observations are full of interest; but we turn from them to give a brief sketch of the author's views regarding the practical means to be adopted from the after effects of inflammation. The doctrine of the schools on this subject is that advanced by Majendie, "who refers the act of absorption to an affinity of the vascular walls for the matters absorbed; the absorbing power of the capillary membrane being, in their opinion, assisted by the unequal density and viscidity of the fluids situated on either surface." Against this doctrine Dr. Robinson raises various objections. He argues that the laws of endosmosis and exosmosis apply only to stagnant fluids, and not to rapidly-moving streams; that the theory does not explain how, in certain parts of the body, one or other action, namely, effusion or absorption, wholly preponderates. Again, that the force which it supposes to operate is not sufficiently active to cause that rapid absorption which is so often witnessed. Lastly, that the theory leaves us as ignorant as before of the immediate cause of absorption, and is therefore practically useless in guiding our employment of that process as a remedial agent. Thus meeting with objections the views ordinarily held by the physiologist Dr. Robinson lays down his own proposition, viz. "That the active power employed in the animal body for the performance of absorption, resides in the currents of blood which incessantly traverse the veins and terminating portion of the capillaries."

The difference, therefore, as the author himself remarks, between his own view and that originated by Magendie is, that whereas Magendie considers that the streams of blood merely carry away the fluids which the membranes have absorbed; that which he (the author) ventures to advance as the more correct view is, that the rapidly-moving blood-columns take "the chief, prime, and active share in the process, the intervening membrane being perfectly passive, and contributing nothing more than its porosity towards the performance of the function."

As the corollary, Dr. Robinson opines that to obtain the absorption of the matters effused in inflammation, we must, in every case, as far as possible, increase the general absorbing power of the capillary blood-currents, while there are applied, wherever practicable, local remedies calculated either to augment the pressure acting on the exterior of the affected vessels, or to promote the activity of the circulation through them. The first object is to be accomplished by a persistence in the use of evacuants, and by continuing to limit the quantity of the ingesta; the second by the application of cold; astringents, or mechanical support.

We have selected the above illustration of our author's views and mode of argument, as perhaps the best in the book for the purpose of a review necessarily limited in its extent. Our readers will see, when we add that the book is made up of examples such as have been given above, that its pages open up fair ground for free discussion. Some who would agree with the author in his experimental facts, would possibly disagree with him in some of the inferences which he derives from them. We could, in fact, open controversy on almost every point, but our object is rather to give an idea, however brief, of the volume as an argumentative treatise, and to commend it as the offspring of a thoughtful and original mind.

PROGRESS OF MEDICAL SCIENCE.

Selections from Foreign Journals.

ON THE FRENCH ARMY IN THE EAST.

By M. BAUDENS.

M. Baudens, appointed chief inspector of the French Army of the East, has contributed to the *Revue de deux Mondes*, an interesting account of his mission. This has been reprinted in the *Gazette Médicale*, and we purpose laying before our readers such extracts from it as we conceive may prove of interest to them.

1. Cholera, which had already shown itself among the troops before their arrival at Malta, continued to spread in their passage thence among the young soldiers, who were crowded upon the deck, their clothes dripping with wet from the damp nights, and exposed to a tropical heat during the day. M. Baudens found the greatest advantage result after he had ordered the distribution of a ration of hot wine every night at nine, and some hot tea at four in the morning. Panic, which had commenced to prevail, as well as the progress of the disease, were soon arrested.

2. Examining the multitude of bones at the foot of the mountain at Inkermann, down which the Russians had been precipitated, M. Baudens found that they were those of men of no great stature, but exhibiting remarkable strength of structure. The size of a femur or tibia at once enabled him to distinguish the bones of a Russian from those of a Frenchman or Englishman.

3. He testifies to the admirable condition and supplies of the British camp, and attributes to this our exemption from the typhus and scorbutus that so cruelly scourged the French army. He observes that comparing the condition of this camp when we were taken unprepared at the beginning of the war, and the condition in which it had become placed in 1856, "one is forced to acknowledge the grandeur of the British nation."

4. The French cavalry was much less tried by disease than the infantry, because the places of its encampment were more healthy, and the horse-soldier was more attentive to personal cleanliness, and lived more in the open air, in place of crouching under his tent during the great part of the day, as was usually the case with the foot-soldiers.

5. *Food.*—Biscuit was found a great resource in the Crimea, for it keeps well and is easily transportable, and for an equal weight is far more nutritious than bread, one-third of the weight of which consists in water. The ordinary ration is 550 grammes, besides 185 for soup. This was raised in the Crimea to 650, while the soldiers working in the trenches, besides higher pay, received additional 250 grammes. Still, the soldiers much preferred bread, however heavy and coarse it might be, as it satisfied the stomach much better, was more easily digested, and did not cause satiety. The separation of the bran from the *pain de munition* has been sometimes carried too far, viz. to 20 per cent. Such bread digests too rapidly, and does not soak so well in the soup; and the soldiers, accustomed to country fare, prefer coarse to fine bread. *Beef* is the best fresh meat that can be employed in the army, for it alone will make good soup, and the vulgar proverb, *la soupe fait le soldat*, is perfectly true; but the oxen, after all their vicissitudes, arrived at the camp in such a state as only to be comparable to the lean kine of Pharaoh. On account of its bad quality the ration of beef was raised from 250 to 300 grammes; but of this bones constituted an enormous proportion. A very advantageous means of improving the soup was found in bruising the bones that had been used, and boiling them for gelatine. The substitution of 120 grammes of pre-

served meat, though of excellent quality and more nutritious, was always disliked by the soldiers, and meat in powder, always suspected by them to be adulterated, soon created disgust. M. Baudens endeavoured to persuade the soldiers to convert some of the numerous horses that died in the winter into soup, although with indifferent success. Some batteries of artillery which followed the advice had no cause to regret it, being spared the diseases and mortality that so cruelly devastated the rest of the army. Fresh *vegetables* were a great want, which was ill-supplied by the substitution of preserved ones, which also, towards the end of the campaign, fermented. Sacks of potatoes, which arrived now and then, were regarded as complete God-sends, and as much as ten francs were given for a cabbage. Scorbutus was delayed in its attack by the discovery of abundance of *taraxacum*, which sprang up again as fast as it was gathered, and formed an excellent salad. In the great cold of winter and heat of summer it ceased to be obtainable, and its deficiency was soon exhibited by the ravages of scorbutus. Strange to say, the French made little or no use of lemon-juice, although having abundant evidence of its efficacy in the English camp, which was well supplied with it. M. Baudens much blames the French system of obliging each soldier in his turn to act as cook; the consequence being that while one company in the same regiment has excellent soup, another has it of the most wretched quality. He also impresses upon officers the necessity of imitating the captains of ships, and examining all these details for themselves, endeavouring to secure the same regularity and punctuality in meals as prevails on board ship. It was found in the Crimea that the regiments which best resisted the effects of disease were commanded by colonels who did not disdain these minutiæ. Thus, of two regiments arriving at the same time, and exposed to the same vicissitudes, in one 2224 soldiers were preserved of an effective of 2676, and in the other but 1239 of an effective of 2327.

6. *Drinks.*—The wine used in the Crimea was generally good, ¼ litre being allowed to each soldier. In the periods of epidemics, Pelissier ordered the rations to be doubled. Alternately with the wine, one-sixteenth litre of brandy was distributed. Taken intemperately, brandy proved very dangerous in winter, exposing the drunkard to freezing to death, but taken in moderation it induced a salutary reaction. Coffee often replaced both these, sixteen grammes, with twenty-one of sugar, being allowed. In Algeria the troops had already preferred this to brandy. They never tire of it; and in trenches and elsewhere, when soup cannot be prepared, it forms an admirable substitute. It was supplied to the soldiers roasted and unground, small mills being sent with it. When these were worn out all sorts of devices were resorted to, for powdering it, and, among others, rubbing it with a ball in the half of a bomb.

7. While acknowledging the invariable regularity with which food was distributed in the Crimea, M. Baudens suggests improvements. The quantity of food should be increased —it should be more varied, and distributed over another meal. At present, the soldier has only two meals, at 10 a.m. and 4 p.m., so that eighteen hours elapse between the evening and morning meals, which for young, growing soldiers, formerly accustomed to early breakfasts, is a great hardship. The monotony of the food, too, two beef-soups *per diem*, becomes insupportable, and has often prevented conscripts who have served their time from enlisting.

8. *Camps.*—Although the three French camps were well placed and ventilated, the tents and huts were far too crowded; and this not only in the Crimea, where it might be unavoidable, but also at Constantinople; and hence, in M. Baudens' opinion, the persistence of cholera and the ravages of typhus and hospital gangrene. He says that whenever the Medical officer demands space he is always answered that the facilities of the service must be first considered; so that in saving a few paces the most simple and most important laws of prophylaxis are violated. Sometimes, too, the sites of camps are unhappily chosen; and two camp hospitals or barracks are hardly ever found constructed on the same model. The most logical mode of procedure would be to appoint a commission, composed of Engineering and Medical officers, who should lay down the plan of the camp. Great difficulty was found in getting the French soldiers from under their tents even in fine weather, so that ventilation was performed with difficulty. M. Baudens also complains bitterly of the want of personal cleanliness, and of the filthy state in which the barracks were kept, forming a striking contrast to the cleanliness of the English camp.

9. *Clothing.*—As the French in Algeria had modified their military costume according to the climate, so, in the Crimea, they found the clothing of the indigenous Tartar far better suited for the cold of winter. What they termed a *crimeenne*, is a long, ample, hooded coat, with a small cape, made of coarse, warm, almost impermeable cloth; and this was found so useful that it will probably be definitively adopted in the army. A kind of spencer, formed of skeep-skin with the wool inwards, worn at the commencement of the war, was discarded, as impeding transpiration, and encouraging vermin. The flannel waisteoats of the English soldiers were much envied, the French having only a flannel belt, which was still of great use. The Bulgarian gaiters, made of warm cloth, and coming up above the knee, were worn by the whole army in preference to the ordinary gaiter. Woollen socks and wooden shoes were often found a more effective preservative of the feet against frost-bite than shoes and stockings. M. Baudens thinks that the boots supplied to the English, coming up above the knee, were needlessly long; and that half-boots would have been better for marching in. The Russian soldiers wore half-boots, made of such excellent leather that they could pass anywhere without tearing or wetting them. The legs were wide enough to receive the pantaloon. These boots were considered by the French soldiers as the most valuable objects of the spoils of war.

10. *The Ambulances.*—The fourteen divisions of the Crimean army had each its ambulance, although one ambulance, with capability of being doubled if required, sometimes served for two divisions. The divisions were distributed into three corps, each corps having its *médecin en chef*. Each ambulance had eight *médecins*, two *médecin-majors*, six *aide-majors*, and two *pharmaciens*. At the commencement the ambulances were all under tents, but huts continued to arrive in increased numbers until four or five thousand patients could be accommodated, mattresses and coverings being supplied to superfluity. The chief difficulty during the severe winter of 1855-6 was to get washing performed. It is obvious that after a battle or during an epidemic this number of Medical officers was utterly inadequate; and a new class of assistants was organized, who were of the greatest service. Among the convalescents were frequently found young men of education, even bachelors of science and advocates; and in place of being furnished with furloughs, they were retained in the service of the doctors. Their new functions, leading to a bettering of their position, hastened their recovery, so that shortly they were enabled to rejoin their regiments, their places being supplied by others. These useful auxiliaries were designated as soldier-dressers (*soldats-panseurs*), and the chief Medical officers took great pains in instructing them. When typhus decimated the army Medical body, and the Minister of War was in vain besought for a new supply he really had not at his command, the service would have been seriously impeded had it not been for the soldier-dressers. To them were confided the keeping the visiting books, the distribution of the food and medicine ordered, and the application of simple dressings. They prepared fracture-apparatus with remarkable skill, and under supervision even dressed amputated stumps. In some instances they arrested hæmorrhage until aid could be got. Still their ministration was strictly confined to manual assistance, they having nothing whatever to do with the direction of the treatment. Such *soldats-panseurs* M. Baudens thinks advantageously replace mere students from the schools, who are unwilling to undertake these lower duties, and are not qualified for the higher ones; while by their attendance in the army their studies become interrupted, and their habits unsettled.

M. Baudens bears testimony to the high efficiency of the English ambulances. Their greater cleanliness than those of the French he in some measure attributes to the more independent position of the English Medical officer, who, not under the control of the *intendant*, as in the French and Sardinian army, exercises great authority in the carrying out hygienic measures. The diet was also far better, the command of extras being without limit, champagne itself being administered in certain forms of sickness. The Russian ambulances and barracks were very defectively ventilated, and in their army, as in all their other campaigns, typhus was very prevalent.

(To be continued.)

GENERAL CORRESPONDENCE.

PREMONITORY SYMPTOMS IN CHOLERA.

[To the Editor of the Medical Times and Gazette.)

Sir,—In your numbers for October the 24th and November the 14th are two letters from a correspondent in reply to a brief notice of the outbreak of cholera at West Ham, in which I have stated that all the cases, except one, were without premonitory symptoms. That remark was intended to refer to the seven fatal cases only, although inadvertently that limitation was not expressed. The Doctor endeavours to prove that that assertion is incorrect, and that in each of the cases there had existed a premonitory diarrhœa for a few days, a few hours, or a few weeks, and that this is invariably the case; and that that exceptional case was not one of cholera. As he appears to have been misled by inaccurate information as to the circumstances and symptoms, it seems to be incumbent on me to give the correct statement more in detail in reference to the question of premonitory diarrhœa. The Doctor says he called on me, and that I gave him all the information I possessed relative to these cases. That is not exactly the real state of the case. I offered to give him that information, and to read to him my notes of the cases, but to my great surprise he declined to hear them; thinking I must have misunderstood him, I repeated the offer, which he still declined to accept. He wanted only the names and addresses of the cases.

As my notes were taken from the gentlemen who had attended the cases, and as I have since referred to them to verify their statements, and have taken pains to get such corroboration as was practicable from the survivors, I have implicit confidence in their correctness. If the Doctor had condescended to hear these notes read, so that he might, at the least, have compared them with information derived from less reliable sources, and if he had entered on the investigation free from any foregone conclusion to support, this unseemly discrepancy in the histories of the symptoms might have been avoided. The phrase "premonitory diarrhœa" is incorrect and vague. It would be better to drop it than to cavil about it. The really practical and useful question is, whether invariably diarrhœa is the earliest symptom of cholera, and in every case exists for some hours or for some days, or for some weeks prior to the stage of collapse. In former epidemics of cholera, diarrhœa has usually constituted the first stage of the disease, and has continued for a period of uncertain duration before the occurrence of collapse. In a majority of cases it has existed for a considerable period previous to that stage; sometimes for a very short period. Sometimes cholera in the stage of collapse has made its attack without any precedent diarrhœa; sometimes diarrhœa has occurred, not before, but after collapse has existed some time, and only just before death.

On the other hand, it is not doubtful that diarrhœa very frequently exists without the supervention of cholera at all. It is difficult to distinguish the cases of diarrhœa that, if left to their natural course, would not be succeeded by collapse or by death, from those cases that would so terminate: but there can be no doubt there is a diarrhœa as a distinct disease, and a diarrhœa that is a symptom or an early stage of cholera. It is therefore illogical in either case to call diarrhœa a premonitory symptom. It cannot be said to be premonitory of that which is not about to follow, nor can it be said to be premonitory of a disease of which it constitutes a symptom. The cold stage is not said to be premonitory of ague. Taking the fatal cases in the order in which, in these letters, they are noticed:

Case 1.—Mrs. Cresswell, aged 46, was remarkably well and free from diarrhœa when she went to bed. At 6 a.m. she was seized with sickness and diarrhœa: at 12 she was in a state of collapse, with cramps, loss of voice, suppression of urine for some hours, rice-water vomiting and purging. She died at 2½ a.m. the following day.

Case 2.—Andrew Redpath, aged 28, had diarrhœa for two days previously. At 7 p.m. he walked to the surgery and back for some medicine, a distance of about a mile and a half: at 9½ p.m. he was seized with vomiting, cramps, collapse, and he died at 5 a.m. the following morning.

Case 3.—Ann Miller, aged 23. The previous evening she had a supper of bread and cheese and porter, and went to bed quite well and free from diarrhœa. At 4 a.m. she was seized with sickness, purging, cramps in the legs and bowels: at 6 a.m. the purging and sickness ceased; collapse increasing, she died at 3½ p.m.

Case 4.—George Norris, aged 24. The previous day in the morning he had a costive motion: at 8 a.m. he was seized with sickness, had an evacuation that was formed, not loose, of a yellow colour. At 10 a.m. collapse took place: at 7 p.m. he died, having had purging of rice-water just before he died.

Case 5.—Mrs. Pigram, aged 60. She had a purgative pill at bed-time, for costiveness: at 4 a.m. she had diarrhœa: at 7½ a.m. she had rice-water sickness and purging, collapse; no urine hed passed for several hours: at 12 she was pulseless and sinking; the following morning at 7¼ she died.

Case 6.—Jos. M. Mansfield, aged 3½. He was out playing—at 3 p.m. he ran into the house suffering from cramps; sickness came on immediately as they were carrying him to the water-closet, where he was purged; he was then taken to bed; collapse came on immediately, and he died in 4 hours, at 7 p.m. He had no previous diarrhœa.

Case 7.—Kesiah Palmer, aged 66, had been bedridden for six years; was as well as usual till a quarter to eleven a.m., when she was seized with violent cramps in the bowels, followed immediately by sickness, which was so severe that the rice-water evacuation soaked through bed and bedding, and a lot of clothes that had been thrown under the bed, and formed a stream that ran across the floor. During the attack she foamed slightly at the mouth, but was sensible until her death, which took place in about six hours. These were the fatal cases. They were all cases of cholera, and they were all, excepting one, without premonitory diarrhœa, in the usual vague sense of the phrase.

After the narration of these cases by the Doctor, which differs in important points from the foregoing, he goes on to say, "We have here six deaths from cholera; the seventh is not one of cholera. Five of these cases had a premonitory diarrhœa for a shorter or longer period previous to the attack of vomiting, spasms, etc.;" "and, therefore, in conclusion, I have no doubt that these six cases were preceded by a premonitory diarrhœa for a longer or a shorter period." The Profession have before them this brief statement, supplied by gentlemen who attended the cases, and who had no foregone conclusion nor theory to support; they will now be able to form their own conclusions.

Of the other cases it may be well to give a short notice:—

Case 1.—E. Dixon, aged 4½, had looseness of bowels two days previous to the attack, which ceased immediately. He went to school as usual. He was taken ill suddenly with cramps and sickness, followed by diarrhœa and collapse. He did not pass water for four days.

Case 2.—Mrs. Dixon, aged 32. Had diarrhœa nearly a week before cramps, sickness, etc., came on.

Case 3.—Alfred Dixon, aged 3, was seized suddenly with cramps, followed by sickness, afterwards by diarrhœa.

Case 4.—M. A. Sampson, aged 4. Had measles for nine days previously; diarrhœa; then collapse slightly.

Case 5.—Ebenezer Champness, aged 16. Had diarrhœa for some days previously; had cholera with secondary fever, and recovered.

Case 6.—Susan Mansfield, aged 29. Had ordinary diarrhœa for two days previously. She had cholera, collapse, and consecutive fever, and recovered.

Case 7.—Mary A. Mansfield, aged 14 months. She had diarrhœa from teething a month previous to the attack. The diarrhœa lasted three weeks. She had no diarrhœa for a week before the attack. The bowels were not acted upon from the day before. October 10, she was seized with cramps, became cold, sickness, followed by diarrhœa, came on, consecutive fever set in, she rallied, was then seized with measles on October 26th, and died on November 7th. I fear I have trespassed already too much on your space, and must defer further remarks. I am, &c.

W. Elliot, M.D.
Medical Superintendent to the Local Board of Health of West Ham.

November 25, 1857.

CHOLERA AND PREMONITORY DIARRHŒA.

[To the Editor of the Medical Times and Gazette.]

Sir,—In a late article in the *Medical Times* it is remarked that Dr. Maclaughlin's belief in the invariable occurrence of premonitory symptoms before Asiatic cholera sets in, appears to be strengthened by the cases reported at Westham; and in your issue of Nov. 14th, Dr. Maclaughlin writes:—"The result of researches which have been undertaken, whether diarrhœa and cholera are two distinct diseases, and whether cholera invariably attacks suddenly persons in perfect health, by severe purging, vomiting, cramps, &c.; or whether there is a symptom, or train of symptoms, which marks the deviation from health, and invariably precedes an attack of vomiting, severe purging, cramps, etc., was made known to the medical world in 1853, and pointed out three important pathological facts,—1st, that every case of cholera is invariably preceded by diarrhœa, for a few hours, or a few days, or a few weeks."

No doubt that is true with regard to a majority of cases of malignant cholera; but cases do occur where the premonitory symptoms are entirely absent, the first symptoms of illness being cholera in all its intensity, viz., cramps, rice-water evacuations, blue skin, and collapse.

Such a case occurred to me on Sunday evening, Sept. 20th, 1857. I was called at 9 p.m. to see Mr. G. L., a veterinary surgeon, and found him suffering from severe cramps in the body and extremities, the skin cold and livid, the voice a mere whisper, and the stools thin and watery.

He had been quite well, and following his occupation during the day, and had just returned from an evening service at the chapel. To my inquiries as to the date and duration of the attack, I was informed that I had been sent for immediately he was taken ill, and the family all assured me, as well as my patient, that he had had no diarrhœa or illness of any kind previous to this attack. He died on Tuesday morning at 8—just 35 hours from the first symptoms.

The family consisted of three persons—my patient, his son, who assisted him in his work, and a daughter; neither of these had any illness, nor has any other case occurred in the neighbourhood. From observations at the outbreak of cholera in 1849, I am led to believe that there are many cases of malignant cholera in which no premonitory symptoms occur, though I believe that the majority of cases are preceded by such symptoms.

I am, &c.

Thos. R. Evans, M.D., M.R.C.S.

Coltishall, Nov. 21, 1857.

[To the Editor of the Medical Times and Gazette.]

Sir,—In reply to a letter from Dr. Macloughlin, which appeared in the last Number of the *Medical Times and Gazette*, I wish to state my belief that by the Profession generally the premonitory diarrhœa, as it has been called, is in truth but the first stage of true cholera, dependent on the efficient cause of that disease, and if not checked by judicious treatment, would in most cases go on to the second, or more serious, stage of collapse.

To show that these views were entertained by myself, and communicated to the Profession at the first appearance of cholera in this country in 1831-2, I may adduce the following extract from the little book I published at that time, on "Cholera in Newcastle and Gateshead."

"If we revert to the order of the phenomena, both in the analysis which I have given and as they generally present themselves to our notice, we find the irritable condition of the stomach and bowels the first in occurrence; and this is more remarkably the case when we are enabled to trace an earlier stage of disease than that of asphyxia or collapse. In a great majority of cases such a stage may be clearly ascertained to have taken place, and its symptoms—diarrhœa, impaired digestion, headache, pain at the pit of the stomach, or extending over the abdomen, with a quick, sharp pulse, more or less marked, are all indicative of gastric and intestinal irritation. This irritation, then, appears to be the primary effect of the efficient cause of cholera. Whatever may be the true nature of that cause, or the mode of its introduction into the system (questions which will be hereafter reverted to), it seems sufficiently evident that its first impression is made upon the nervous expansion of the alimentary tube, and that on this is ultimately dependent the series of phenomena which follows. In this respect it bears a strong analogy to the effects of many poisons. In proportion to the intensity of the first application of the efficient cause, and to the susceptibility of the individual on whom it acts, will be the degree of severity of the symptoms immediately and ultimately induced. If the susceptibility be great, and the intensity of the agent considerable, the patient will probably be plunged, with scarcely an appreciable interval, into the second stage of the disease; yet even in these cases, though overlooked, or with difficulty distinguished, it is probable that a primary stage really does take place. Its extreme shortness eludes our observation, in a manner somewhat analogous to the rapidity with which the mind preserves a train of reasoning on a familiar subject, and arrives at a conclusion, scarcely aware of having run over intermediate links in the chain of inquiry, although we are fully assured that such must actually have been the case. In other instances the progress is less rapid, the first stage is distinctly marked, we are enabled to trace the succession of symptoms with accuracy, and their dependence on each will admit of more deliberate observation. In cases of this description the marks of gastric and intestinal irritation sometimes show themselves for many days in diarrhœa, loss of appetite, nausea, pain at the stomach, with quick and irritable pulse, and the other slight symptoms of indisposition which have been already noticed." (See Cholera, &c. p. 6.)

This extract will suffice to show the inaccuracy of Dr. Macloughlin's supposition, "That diarrhœa and cholera are two distinct diseases, was adopted and acted on in all countries up to 1854." I shall not, therefore, trouble you with further evidence.

I am, &c. T. M. Greenhow, M.D. F.R.C.S.

Newcastle-on-Tyne, Nov. 21, 1857.

FEES.

[To the Editor of the Medical Times and Gazette.]

Sir,—As the subject of the Physician's and Surgeon's fee has lately been undergoing a discussion by several members of the Profession, it may not be uninteresting to your readers if I now say a few words on the matter, reserving to another, and I hope an early opportunity, the full discussion of the subject in a chapter, "The Medical Man and his Remuneration," of a work on which I am engaged, and which has for its title, "The Medical Man, his Duties and his Rights." There are, I think, few Medical men who will not agree with the accomplished and distinguished Physician, who, on talking over the matter lately, said:—"A patient comes into my room, whom I have never seen before, and shall probably never see again: he has some affection of the chest; I learn his history; I strip him, and carefully examine him stethoscopically and otherwise; I then prescribe; and for my three quarters of an hour's work I get a pound or a guinea. I feel myself greatly underpaid." So say I, and this for many reasons. That Physician, to earn what is the due of a Professional man, must slave away his life; unceasingly working, he cannot afford to rest, to pause, to live. 2ndly, a Physician thus underpaid can but poorly afford to do what we all feel a delight in doing, to give his advice gratuitously to governesses, and many others of this class. 3rdly. He surely can but ill afford to give the time and energy of mind and body, at the hospital, which his hospital patients demand.

Now the simple remedy I saw and still see for these evils is, that the Physician or Surgeon shall be at liberty to place his *first* consultation-fee at two, or even more guineas. Among other advantages of this plan is this, that it would throw more chances in the way of the young struggling Physician or Surgeon, who could afford, of course, to take the single fee.

Abstractedly this is right, and in my own case, after thorough discussion with Medical friends, I resolved to adopt the plan in practice. I tried the plan, I have given it up; and here I give my reasons for having tried and given it up. 1stly. I tried the plan in my own case because I felt that my time was growing more and more valuable, and the constant study and investigation which my own, and I suppose every other branch of surgery demands, make me wish for more time for work; for I of course assumed that I might probably diminish the *number* of my patients.

2ndly. I gave it up, not because patients complained; the majority most decidedly appeared to be more grateful than

under the old plan (and here it must be assumed that I never took two guineas without feeling that the additional guinea was *no* object to my patients, who most probably never saw me again), although I own, where I took an additional fee for the operation of syringing (a mistake on my part, and remedied), some few patients have complained to others; but I gave up the plan, because I could not inform the patients *before* the consultation that *two* guineas was my fee, and because cases must frequently occur in which the patient, being told *after* the consultation that my fee was two guineas, would say, "I am not going to take Mr. T.'s advice, and pay him less than his fee;" and at the same time such patients might not be able to afford the two guineas. Perhaps I ought to have given up my position, on the ground that a patient comes into my room expecting to pay one guinea, and I ought not to take more. I did not do so, and it is a pleasure to me to own my error, now that I see it clearly.

It will be observed that I do not yield in the slightest degree the *abstract right* of a consulting Surgeon or Physician to his double or treble first fee in some cases; but, as I have said above, I shall reserve the full discussion of this subject, and that of the Medical man's remuneration generally, to an early opportunity, when I trust to be able to do some justice to this difficult but most important subject.

I am, &c. JOSEPH TOYNBEE.

18, Savile-row.

ARSENICAL POISONING.

[To the Editor of the Medical Times and Gazette.]

SIR,—Mr. Saville's case, in this week's *Medical Times and Gazette*, puts me in mind of a case in my own practice, which, if you think it is worth it, I enclose for insertion.

A few months ago, on my return from a country journey, I found repeated messages had been left for me to visit a poor woman, who had taken, an hour and a-half previously, a packet of "Battle's vermin-killer," two drachms of laudanum, and half-a-drachm of the ordinary "red precipitate," or red oxide of mercury.

My patient, who was a young married woman, had, in a "tiff" matrimonial, swallowed all these potent lethal drugs, and yet on my seeing her she was under the influence of the opium alone. No twitchings; no convulsive movements of any kind, to show that any strychnine had been taken.

The usual remedies for poisoning by opium restored my patient in a few hours to comparative health. I may briefly name that I gave an emetic of sulphate of zinc (the druggist's assistant who sold the poisons had previously administered some tartar emetic); used the stomach-pump, which dislodged part of the red mercurial salt; pumped a pint of strong coffee into the stomach, and subsequently administered the whites of eggs to neutralise the mercurial salt. It may be asked, How did I know that the vermin-killer had been really swallowed? To this I answer, I saw it in the matters vomited.

The interest in this case is, obviously, the absence of any tetanic symptoms, after swallowing so large a quantity of the vermin-killer, the basis of which, as we all know, being strychnine, combined (I am informed) with phosphorus.

The case appeared to me so interesting, that I wrote a brief sketch, like the present, and sent it to Dr. B. W. Richardson, who very kindly suggested that I should try a series of experiments upon dogs, giving the alkaloid with morphia, and alone, in varied proportions. Now, it so happens that dogs are not easily procured in my neighbourhood, so I gave a mixed dose of strychnia and morphia to a cat, but the morphia did not arrest the action of the strychnia. My impression is, that I gave too large a dose. It would be of some use, perhaps, if a series of experiments were made of the kind suggested by Dr. Richardson, in order to ascertain how far opium may be useful as an antidote to the effects of strychnine.

It is our main remedy in traumatic tetanus, and appears to be equally indicated where the same pathological condition is present, although produced by an opposite occasion.

I am, &c. THOMAS C. BEATTY.

Seaham Harbour, Durham, Nov. 28, 1857.

THE EPIDEMIC DIPHTHERITE.

[To the Editor of the Medical Times and Gazette.]

SIR,—As I have not seen any detailed account of this disease mentioned in your valuable paper, perhaps a few cases which have occurred in my district may not be unacceptable. On September 25 I was called to A. H., a fine boy, 10 years old, whom I found suffering from enlarged glands of the throat, foul tongue, fetid breath, with a good deal of febrile excitement, and complaining of great difficulty in swallowing. On examining the throat, the fauces were seen swollen and inflamed, the inflammation extending over the palate, but there was no ulceration. I found that he had complained of feeling unwell two days previously, and had been gradually getting worse. I ordered a mustard-plaster to the throat, with warm fomentations, and gave a purge, followed by three-grain doses of potass. chlorat. Next day he was better, able to swallow, inflammation subsiding, and no ulceration; breath still very fetid. I told the parents to send for me if he became worse, but heard nothing further till the morning of the 28th, when I was sent for in haste, and on my arrival found the boy almost pulseless, with cold extremities, in fact dying. I gave him some stimulants but with no effect, as he died in an hour. The parents told me that on the day before he had been up, seemed cheerful, had taken some nourishment, and had passed a comfortable night, but that suddenly a change came over him, and they sent for me as related. This was the sixth day from the first premonitory symptom. A sister of this lad was taken a few days afterwards, and recovered.

On September 30, I was called to E. P., a girl, aged 12 years, residing in the same parish. The symptoms were similar, but on the evening of the second day extensive ulceration of the fauces took place, and the breath was excessively fetid. The treatment was the same, with a chlorine gargle, till the fourth day, when I began to give port wine and beef-tea in frequent doses, but this child died on October 5. A brother was also attacked, but recovered.

On October 12 another child in the same parish was attacked. To her I gave an emetic, followed by eight-minim doses of acid. sulph. dil., and the gargle, supporting her with beef-tea after the third day. This child recovered, as did also three others in the same house.

In another house six children were attacked consecutively, and one died. Five others in detached residences recovered. One boy, with malignant disease of the face and throat, died. My last case occurred on November 7, and was convalescent on the 13th. I have had twenty cases in all, out of which four proved fatal. There have been other cases in the same parish and its vicinity, but not under my care. It lies very low, and there are large marshes stretching at the foot of it.

The throats of all the children (except the first) were extensively ulcerated, and the breath insupportably fetid. In the case of those who recovered, large ash-coloured sloughs were detached and coughed up.

The treatment I have found most effectual is to give at the onset an emetic, say, Pulv. ipecac. grs. xv., followed by small doses of acid. sulph. dil., and a gargle composed of Sir W. Burnett's sol. zinci chlor. ʒss., aq. font. ʒvj.

In the case of young children the mouth and fauces must be frequently brushed out with a feather dipped in this solution.

A mustard-plaster at first, with constant warm fomentations, will also be useful.

On and after the third day, beef-tea and port wine frequently given will be necessary, as the patient requires support.

This disease seems to be confined to children, as I have not had a single adult attacked.

I am, &c. CHARLES P. JAMES, L.A.C.

Leiston, Suffolk, November 25, 1857.

OVARIAN DROPSY AND INJECTION OF IODINE.

[To the Editor of the Medical Times and Gazette.]

SIR,—The following case has many points of great interest. Miss C——, aged 26, of a delicate constitution, suddenly discovered an enlargement of the left side of the abdomen, which proved to be ovarian dropsy, and the disease so rapidly progressed that in the short space of six months it became abso-

lutely necessary to relieve her by tapping, and about sixteen pints of highly albuminous dark fluid were drawn off. In six weeks the operation required repetition. At the end of seven weeks more the distention and inconvenience became so great that Mr. Brown was requested to see her. He then heard the history just given, as also that she had consulted a few weeks before a celebrated London physician, especially with a view to inquire of him as to the utility of injecting the cyst with iodine. This gentleman in no measured terms condemned any interference beyond tapping, and especially the injection of iodine, stating that it was almost uniformly fatal. I found the patient extremely emaciated, with a quick irritable pulse, and a painfully distended abdomen. Upon being asked whether I recommended iodine, I replied that I considered the patient too seriously diseased to permit the hope of her being cured by any procedure, but that I did not look upon the injection of iodine as in itself likely to increase the danger. Having submitted fully and frankly the dangers to be apprehended from every kind of interference, including even tapping, I left it for the patient and friends themselves to decide. In 24 hours the patient elected to try the iodine. On the following day, therefore, Nov. 13th, I injected ʒv of the strong tincture of the Edinb. Pharm., and allowed it to remain within the cyst. The patient was less affected than usual by the shock of the iodine and its elimination. Although iodine could be detected in the ejecta from the stomach, it could not in any appreciable degree either in the urine or saliva. Under the free administration of stimulants the patient was convalescent in four days, and in ten so much better in general health, as to be drawn out in a Bath chair for half an hour. Although there is no doubt there will be some return of the fluid, still it is evident to all that the health has been improved and not impaired by the iodine injection. This case appears to me to be instructive on several grounds, and is an additional case in my own hands where the operation was not fatal. (I have not yet had one fatal case.) It therefore controverts the wholesale condemnation of the plan. The improvement of her general health fully warranted its trial. The absence of elimination through the kidneys is also quite new to me. Many cases which I have already recorded, one of which was operated on nearly three years since, have continued well and free from disease. I therefore infer that the operation is worthy the most serious consideration of the Profession, and would make the following practical deductions from my experience. 1st. That the operation, if carefully performed, is not so dangerous as has been supposed. 2nd. That it has in many cases, both in France and this country, proved eminently successful. 3rd. That in the severe forms of multilocular ovarian dropsy, one or more of the cysts may be destroyed by the iodine, and so retard the progress of disease. 4th. That where it does not cure, yet it very much improves the general health.

I am, &c. J. Baker Brown.

16, Connaught-sq., Hyde Park, Nov. 1857.

THE READY METHOD.

[To the Editor of the Medical Times and Gazette.

Sir,—I do not suppose that Dr. Sylvester can intend the case related by him in the last number of your Journal as *proof* of the superiority of his method to that of Dr. Marshall Hall; for in a single case, where more than one mode of treatment was employed, it would be unreasonable to assign the establishment of the respiration to that last used; for although the breathing commenced after its employment, it may fairly be said to have been as much *post* as *propter hoc*. And further, we must not forget the power of excited reflex action from cold, rough movements, etc., in the resuscitation of still-born infants.

From observations made during the prosecution of our experiments (published in October, 1856), I have reason to doubt the efficiency of the movements of the arms in producing respiration, as recommended by Dr. Sylvester; nevertheless it is of the utmost consequence that a question of such vital interest should be cleared up as soon as possible, lest a method so little supported by evidence be employed in lieu of one which has been found so generally successful.

Even if it be proved that the movement of the arms in the way directed produce inspiration, there is still a principle of the greatest importance which has been entirely overlooked, viz. the necessity of the prone position. This was one of the first conclusions we arrived at during the course of our experiments; for when the body was supine, we were constantly baffled in our attempts to produce respiration, either from the tongue falling back into the pharynx (which was demonstrated by removing one half of the hyoid bone and thyroid cartilage), or by the regurgitation of the contents of the stomach into the same cavity. In the case related, Dr. Sylvester "placed the infant on its back on a small pillow," thus making it liable to suffocate. This may not be so objectionable in infants; but in adults such a position would be attended with the greatest danger.

The objection of only one side of the chest being used in the Marshall Hall method is merely hypothetical. When the pneometer was made to communicate with the lungs, by means of an India-rubber tube, the dead subject was turned rom the back on to the face; this movement, with the addition of a little pressure over the back and sides, caused air to pass from the chest into the instrument, to the amount of about thirty cubic inches. On now turning the subject on its side the whole of this air which had been expressed from both lungs was instantly inspired, and it could scarcely have gone elsewhere than whence it came.

If narrowly observed, it will be found that when the body is pulled on its side by grasping the hip and shoulder of the same side, the opposite hip and shoulder take the ground as a fixed point, and the chest is thus raised from the ground, allowing it room enough to expand to the full extent of the elasticity of the tissues.

The remaining suggestions of Dr. Sylvester were, I think, sufficiently considered by Coadjutor in your Journal of Nov. 14th, and I should not now have troubled you, but that I consider it most important to insist above all things on the prone position, whatever other means may be employed.

I am, &c.

Folkestone, Nov. 28th, 1857. "Another Coadjutor in the Discoverer's Experiments."

PROVINCIAL CORRESPONDENCE.

IRELAND.

Dublin, December 2, 1857.

The first evening meeting of the 128th annual Session of the Royal Dublin Society was held in the Board-room on Friday, Nov. 27th, L. E. Foot, Esq., V.P., in the chair. Professor Barker read a memoir of the late Professor Davy, whose death was recently recorded in your Obituary. A very brief sketch of his career and an enumeration of some of his contributions to chemical science may not be out of place in your Journal.

Edmund Davy was born in Penzance, in Cornwall, in 1785, where he resided until 1804, when he removed to London, and was appointed operator and assistant in the laboratory of the Royal Institution to his cousin, the late illustrious Sir Humphry Davy. In this privileged position, in an institution which was then, as Professor Barker justly remarked, the centre of attraction to all the chemists in Europe, he continued during the next eight years, a period most eventful in the history of chemistry. In 1813 he was unanimously elected Professor of Chemistry in the Royal Cork Institution, and in 1826 he was chosen to fill the chair in the Royal Dublin Society, rendered vacant by the death of Mr. Higgins, and which he subsequently occupied during the lengthened period of thirty-one years.

It was through Professor Davy's instrumentality that the system of Provincial Lectures was first established in Ireland, a system which has been deemed worthy of complete organization, and of being placed under the direction of the joint Committee of Lectures appointed by Government and by the Royal Dublin Society. He himself gave upwards of thirty courses in provincial towns.

Among his contributions to scientific literature were papers on several new combinations of platinum; on the state of the air in a Fever Hospital in Cork; on mineral waters near the same city; on fulminating mercury; on the means of improving bread; on a simple method of preventing frauds in the sale of milk; on a new method of detecting minute

quantities of metallie poisons by electro-chemistry; on the tests for manganese; on the deodorizing powers of peat and peat charcoal, etc. From this very imperfect list it will be seen that most of his contributions to Chemistry were of an eminently practical nature.

A very important paper was afterwards read by the Rev. Professor Haughton, Fellow of Trinity College, on the Tides and Tidal Current of the Irish Sea and the English Channel, considered with reference to the safe navigation of those seas by outward and homeward-bound ships.

The meeting was more than usually crowded.

On the following day, the Pathological Society of Dublin held their first meeting for the present session, Dr. Corrigan, President, in the chair. A great number of morbid specimens were exhibited and commented on. Among these, Dr. Nowlan laid before the Society an enormously enlarged kidney affected with encephaloid cancer, taken from the left side of the body of a child, aged 3½ years. The tumour was first observed on the 23rd of May, and after repeated attacks of hæmaturia the child died on the 20th of November. The right kidney also was diseased, the liver was hypertrophied, and in the anterior mediastinum was a large tumour displacing the heart downwards.

Dr. Corrigan brought forward an example of cirrhosis of the right lung, occurring in a girl aged 24, who had died of diarrhœa with ulcerations about the ilio-cœcal valve. He commented upon cirrhosis as one of the curative means employed by nature in cases of tubercle. In this instance the heart was displaced upwards. Dr. Corrigan also adduced a specimen of epidemic asthenic pneumonia, affecting the upper lobe of the left lung, and mentioned that a peculiarity of this form of disease is the rapidity with which it appears to pass into the third stage.

Dr. Quinlan, on the part of Dr. O'Ferrall, exhibited an aneurism of the arch of the aorta; and Dr. George Porter brought forward a number of gall-stones taken from the gall-bladder of the late Mr. Stafford. These, notwithstanding their number, were spherical in shape.

The President announced as the subject of the essays competitive for the Gold medal for 1858, "The diagnosis and pathology of the diseases of the breast."

The Society then proceeded to the election of officers for the ensuing year, and the following were chosen:

President—Edward Hutton, M.D.

Vice-Presidents—Drs. John T. Banks, Christopher Fleming, John Hamilton, Cathcart Lees, Thos. Beatty, R. Mayne.

Council—Drs. Robert Adams, Dominick J. Corrigan, Sir Philip Crampton, Bart., Fleetwood Churchill, Samuel Gordon, James S. Hughes, Robert Law, Robert D. Lyons, Sir Henry Marsh, Bart., Joseph O'Ferrall, Benjamin G. M'Dowel, Robert W. Smith, William Stokes.

Honorary Secretary—Dr. Stokes.

Secretary and Treasurer—Professor Smith.

Secretary for Foreign Correspondence—Dr. Lyons.

Dr. B. W. Richardson has been elected one of the Secretaries to the Surgical Society of Ireland, in the room of Dr. Bellingham, deceased.

Dr. Lyons has given a fresh proof of his ardour in the cause of Medical science, by repairing to Lisbon, for the purpose of studying the phenomena of the yellow fever now raging in that capital.

The twentieth session of the Dublin Obstetrical Society was opened last evening by Dr. M'Clintock, Master of the Lying-in Hospital, with a very interesting sketch of the Rise of the Dublin School of Midwifery. This address, which exhibited great research, and brought to light many curious particulars accessible to but few, will shortly be published. In speaking of Sir Fielding Ould, the Second Master of the Hospital, and the founder of obstetric literature in Ireland, Dr. M'Clintock stated that he had satisfactory evidence to prove that Sir Fielding attended the Countess of Mornington at the births of the Marquis Wellesley and of the illustrious Arthur, Duke of Wellington.

Honours to Medical Directors of Asylums in France.—M. Calmeil, chief physician at Charenton, has been nominated Officer of the Legion of Honour; and M. Moreau, physician at the Bicêtre, has been nominated Officer of the Legion.

REPORTS OF SOCIETIES.

ROYAL MEDICAL AND CHIRURGICAL SOCIETY.

Tuesday, Nov. 24, 1857.

Sir C. Locock, M.D., President, in the chair.

A paper, by Dr. A. B. Garrod, was read,

ON THE INFLUENCE OF LIQUOR POTASS AND OTHER ALKALIES

ON THE THERAPEUTIC PROPERTIES OF HENBANE, BELLADONNA, AND STRAMONIUM.

The author first alluded to the frequent exhibition of henbane with liquor potassæ, and brought forward many proofs that such combinations were often administered. He also stated that the like mixtures were recommended by both medieal and surgical authors. Dr. Garrod then proceeded to detail experiments, which demonstrated beyond doubt that the active principle of henbane was destroyed by liquor potassæ and other caustie alkalies; and that such a combination was inert, both when topically applied, (as evidenced by the absence of power in causing dilatation of the pupil of the eye,) and also when internally administered. Similar observations were next detailed upon the preparations of stramonium and belladonna, and the results were found to be the same. It was, however, shown that the carbonates and bicarbonates of the alkalies were devoid of the property of destroying the activity of the plants. In some of Dr. Garrod's experiments as much as a drachm of the extract of henbane and an ounce and a half of the tincture were administered in combination with potash, without the production of the slightest symptom.

The results arrived at in the communication may be thus summed up:—

1st. Caustic alkalies, such as exist in liquor potassæ or liquor sodæ, entirely destroy the activity of henbane, preventing its action on the pupil when topically applied, and its influence upon the system when internally administered; and, combined with a proper amount of these alkalies, the largest doses of the preparations of henbane may be given without the production of any symptoms.

2ndly. The same influence is exerted by the fixed caustic alkalies upon belladonna and stramonium.

3rdly. The carbonates and bicarbonates of potash and soda produce no injurious effects upon the preparations of any of the three above-named plants.

The deductions naturally to be drawn from these results are:—

a. That neither liquor potassæ nor any caustie fixed alkali should be prescribed with tincture or extract of henbane, as the virtues of the latter drug are thereby completely neutralized.

b. That when it is desirable to administer an alkaline remedy with henbane, either a carbonate or bicarbonate should be selected, which would probably be equally efficacious upon the stomach, if such influenee be required, and certainly as efficient in altering the condition of the urine, and the mucous membrane of the urinary passages.

c. That the same precautions should be observed with regard to belladonna and stramonium, if at any time prescribed in conjunction with alkalies.

The President observed it was a very common prescription that of henbane with liquor potassæ, and medical men had often been disappointed with the result. The communication of Dr. Garrod only showed how deceptive was our knowledge of the properties of drugs.

Mr. Curling said Dr. Garrod had so completely exhausted the subject that there was very little room left to discuss any points connected with it, except to make the humiliating confession, as he did, that these drugs had been prescribed in an unscientific manner. He must express his obligations to Dr. Garrod for pointing out so important an error. In cases where he had observed the failure of henbane, he felt it was due to the fault in the mode in which he had prescribed it.

The President would like to ask whether, in the opinion

of the author of the paper, the caustic alkalies were an antidote to the poisons under diseussion. He had himself very nearly poisoned a patient with stramonium, and he had witnessed a patient very nearly destroyed by belladonna. From the statement made by Dr. Garrod, it appeared that it took two hours before the narcotic influence of these poisons was destroyed by the caustic alkalies. He should like to hear whether, in the opinion of Dr. Garrod, by adding a larger quantity of caustic alkali, its destructive effects upon the poison would be more rapid; whether in the case of poisoning by henbane and belladonna it would be safe to give caustic alkali as a remedy.

Dr. Garrod did not think caustic alkali could be introduced as an antidote, because it would require alkali of such a powerful character, or in such large quantities, that it would be injurious to the coats of the stomach. He had no doubt that the destructive action of the alkali commenced at the moment it was mixed, but in order to effect complete neutralisation a larger quantity would be required than it would be safe to administer. He could, however, communicate to the Society an antidote for henbane, belladonna, or stramonium, which was perfectly efficacious. It had been used on his own person a year and a half ago. It was animal charcoal. If we took a solution of any of these poisons, and added but a small amount of animal charcoal, the effect on the system was entirely destroyed. It required only a few grains of animal charcoal to destroy completely, or rather neutralize and render of no avail belladonna. The same applied in a greater degree to stramonium and henbane, which were weaker than belladonna. About a year and a half ago he took by accident twelve grains of the dried leaf of the belladonna, and a gentleman, a patient of his, took about a quarter of an ounce of dried belladonna. To both of them animal charcoal was administered, although almost too late. Both of them recovered, the gentleman who took the quarter of an ounce, completely. He was perfectly certain that if animal charcoal could be administered when these vegetable poisons had been taken, it would prove completely effieacious. Of course it was necessary that the antidote should be administered before the poison was absorbed into the system. If it had passed out of the stomach into the system, of course no antidote would have any effect. He could detail an experiment which he had tried more than once. He had given a dog a dose of aconite, and he had given to a second dog thirty or forty times that dose, combined, however, with a small amount of animal charcoal. The first dog died, but the dog to which the animal charcoal was administered experienced no ill effects. He was perfectly convinced that animal charcoal was the most powerful antidote—better than any of the alkalies, because, in the first place, the alkalies required time, and, in the second place, they had to be given in large quantities, and, of course, would be liable to injure the mucous membrane of the stomach and the intestines. It was not necessary to have purified animal charcoal, common bone black would be sufficient.

Dr. E. Smith would like to know in what mode Dr. Garrod conceived the animal charcoal to act, and why vegetable charcoal would not answer as well.

Dr. Barclay would be glad if Dr. Garrod could give any information as to the action of the liquor potassæ upon the henbane, etc.

Dr. Garrod, in answer to Dr. Smith, said he was perfectly ignorant as to the mode of action of animal charcoal upon the poisons, nor could he explain why vegetable charcoal would not answer as well; but the fact was this, if they took a certain quantity of vegetable charcoal, and added it to a solution of henbane, stramonium, or belladonna, it produced no influence upon the solution. The solution, if applied to the eye, continued to dilate the pupil. If, however, animal charcoal was employed, the solution ceased to dilate the pupil. It was known that animal charcoal had an intense absorbing power compared with vegetable charcoal. It might arise from the physical condition of the charcoal; but the fact that animal charcoal possessed this property, which vegetable chareoal did not, could be easily ascertained. If they took quinine or morphia, vegetable charcoal did not act upon it; animal charcoal neutralised it. With regard to Dr. Barclay's question, he was also unable to give an answer.

Dr. Mareet said there was a circumstance much in favour of the view given with regard to animal charcoal destroying the effeets of vegetable alkaloids, and that was that strychnine could be taken up by animal charcoal. The chareoal was used for the purpose of detecting very minute portions of strychnine in beer. It was known that the effect of a poison was annulled when it was rendered insoluble. Experiments made by Dr. Hoffman showed that animal charcoal rendered the poison insoluble, and prevented its being absorbed when steeped in aqueous matter.

Dr. Ridge made some observations upon the proportions in which narcotics should be used, combined with alkalies, to act as a sedative upon the human system.

Dr. Garrod would ask whether any gentleman present could positively say that he had derived any advantage from the supposed sedative influence of henbane combined with caustic alkalies. He had asked many practitioners this question, and found they, like himself, had often been disappointed with the prescriptions.

Mr. A. Ure said he had often prescribed henbane with liquor potassæ. He now, however, regarded the benefit resulting as rather the effect of the alkali than the henbane.

A paper, by Dr. C. Murchison, was then read on a

CASE OF COMMUNICATION WITH THE STOMACH THROUGH THE ABDOMINAL PARIETES,

PRODUCED BY ULCERATION FROM EXTERNAL PRESSURE; WITH OBSERVATIONS ON THE CASES OF FISTULA OF THE STOMACH, ALREADY RECORDED.

The author had seen the subject of the following history when on a visit to Aberdeen, in May, 1857. The patient was then under the care of Dr. Keith, Professor of Clinical Surgery to the Aberdeen Universities; to whom also he was indebted for the details of the case, and for permission to lay them before the Society.

Catherine Ross, aged 34, was admitted into the Aberdeen Royal Infirmary, under Dr. Keith, Feb. 19th, 1857. She is the daughter of healthy parents—both still alive; but one of her brothers is epileptic, and of two of her sisters, one is liable to hysterical fits, and the other is idiotie. The patient herself, about the age of 18 became the subject of hysterical symptoms to an extreme degree. On more than one occasion she has been convicted of feigning diseases, so as to deceive her friends and medical attendants. In 1844, she succeeded, by applying a tight ligature round the shoulder, in producing such a solid œdematous condition of the left arm, that it was believed by her medical attendants to be elephantiasis. After two years of unavailing treatment, at her own suggestion she was admitted into the Aberdeen Infirmary, under Dr. Keith, with the object of having her arm amputated. Dr. Keith, however, exposed the fraud; and three weeks' confinement in a strait waistcoat cured the arm. Some years after this, she fancied she had heart disease; and a seton was introduced into the epigastrium by her medical attendant. This seton was allowed to ulcerate out; and the patient contrived to keep the resulting ulcer from healing, by making constant pressure upon it with a copper penny-piece. The ulceration continued to advance, and after three years, viz. on March 2d, 1854, it penetrated the stomach, this organ having previously contracted adhesions to the abdominal parietes. On removing the dressings, on this day, a quantity of fluid, with a piece of biscuit and orange-peel escaped from the opening. This opening continued to enlarge, and the only way she could retain her food was by keeping it closed with a gutta-percha plug.

On her admission into the Aberdeen Infirmary in 1857, the opening was situated partly in the epigastric, and partly in the umbilical regions, measuring four inches transversely, and three vertically. When the plug was removed, everything she swallowed immediately escaped from the opening; and if she raised herself up, or coughed, the whole stomach became everted. The mucous membrane was of a vermilion red colour, and disposed in rugæ, along which undulatory movements could be observed. Blue litmus paper applied to the moist surface of the empty stomach was not reddened. The stomach could be manipulated in the freest manner without pain; the only effect being a slight feeling of faintness or nausea. The integuments surrounding the opening were red, glistening, and tender. Her appetite was good, often ravenous; and she could eat and digest any kind of food. She was much troubled with thirst, and had only one motion of the bowels in twelve days. For nine years she had been confined to bed, but more from pretended than real ailments; so that,

at last, her joints had become stiff, and she was unable to stand.

The author then gave an account of an experiment which had been performed upon the patient by Dr. Keith, to demonstrate the mechanism of vomiting. From this it would appear that there is first contraction of the pyloric end of the stomach itself, but that the evacuation of the organ is chiefly caused by its compression, from the simultaneous contraction of both the diaphragm and recti and oblique muscles.

Dr. Murchison then gave a brief abstract of all the cases of fistulæ opening into the stomach from without, which he had been able to collect from the records of Medicine and Surgery during the last 300 years. They amounted to 25 in number. He then proceeded to make some general observations on these cases, under the following heads :—

A. *The Causes of Gastro-cutaneous Fistulæ.*

I. *Mechanical Injuries*, 7 cases.—1. Incised wounds of abdomen penetrating stomach, and ending in permanent fistulæ, 3 cases. 2. Gun-shot wounds, 2 cases. 3. A blow over stomach, ending in abscess, which opens both externally and into stomach, 1 case. 4. Ulceration from without, caused by pressure, 1 case.

II. *Disease*, 18 cases.—1. Cancer of stomach, 6 cases. 2. Simple perforating ulcer from stomach, probably 12 cases. 3. An abscess, originating external to the stomach, and opening both into this organ and externally, may have been the cause in one or two cases.

B. *The Situation, Size, and other Characters of the External Opening.*

In none of the cases hitherto recorded did the opening at all equal in size that which exists in Catherine Ross.

C. *Escape of Food swallowed by the Abdominal Opening.*

This was observed in all the cases; but in six, fluids only are noted as having escaped. In the case of St. Martin, the necessity of an artificial plug became after a time superseded by the formation of a natural one, from a fold of the mucous membrane of the stomach. The author pointed out that the escape of food, recently swallowed, from a fistulous opening in the abdomen did not necessarily depend upon a direct opening into the stomach.

D. *Duration of the Fistula, and possibility of Cure.*

In cases resulting from cancer of the stomach, death, as might be expected, speedily results, three months being the longest period that a patient has survived the fistula. On the other hand, where wound or simple ulcer of the stomach has been the cause, the patients have generally lived many years, and apparently enjoyed good health. One case is on record of a woman who lived for 27 years with a fistula into the stomach; and the opening in St. Martin's stomach has existed for 35 years, he being still alive, and in good health. As to the question of cure, the author stated that in four of the cases the opening appears to have closed spontaneously; and in two others the obliteration was the result of treatment. In none of the cases was any cutting operation resorted to.

E. *General Health of persons affected with Gastro-cutaneous Fistulæ.*

In permanent fistulæ the general health has in most cases been wonderfully good. The chief abnormal symptoms have been great thirst, increased appetite, obstinate constipation, deficient secretion of urine, and in women, amenorrhœa.

F. *The Physiological Observations which have been made in cases of Gastro-cutaneous Fistulæ.*

In six of the cases observations had been made as to the appearance of the gastric mucous membrane and the movements of the stomach, etc. Out of four cases in which the colour has been noted, it has been a bright vermilion red in three; but in the case of Alexis St. Martin it was a "pale pink." Movements of the stomach, for the most part of an undulatory nature, have been observed in five of the cases. In three of the cases, irritation of the mucous membrane has been observed to give rise to nausea and faintness, but not to cause any pain.

The author then proceeded to notice the various theories which have been entertained as to the mechanism of the act of vomiting, and stated that, from all the observations which had been made, including that upon Catherine Ross, the following conclusions might be arrived at:—1. That the act of vomiting is produced by the contraction of both the stomach and abdominal muscles. 2. That the contraction of the stomach is limited to the pyloric extremity, and has for its main object the closure of the pylorus. 3. That the chief part of the act is effected by the contraction of both the diaphragm and rectile oblique muscles.

In three of the cases observations had been made on the chemical and physical characters of the gastric juice, and on its digestive powers over different articles of diet, viz. on Magdelaine Goré, in Paris, at the commencement of the present century, by M. Clarion; on Alexis St. Martin, by Drs. Beaumont, Dunglison, and Smith; and on a female, at Dorpat, in 1853, by Messrs. Otto von Grünewaldt and Ernest von Schroeder. The nature of the results arrived at in each of these cases was briefly alluded to, and they were stated to be of a somewhat conflicting character.

No experiments, as regards the gastric juice, have as yet been undertaken in the case of Catherine Ross. Although the fistula, in her case, affords unparalleled opportunities for making such experiments, the author doubted much if the results obtained would be of much value in her present debilitated state of health. He observed, however, that for some months she had been improving in strength, and expressed a hope that she might yet become a fit subject for experiment.

The paper was illustrated with numerous photographs, and drawings of Catherine Ross, and of several of the other recorded cases of gastro-cutaneous fistulæ.

The reading of the paper occupied until ten o'clock, the hour at which the meetings close; consequently no discussion took place on this interesting communication.

THE PATHOLOGICAL SOCIETY.

Tuesday, December 1.

Dr. Quain in the Chair.

Mr. Shaw showed a specimen of

ANCHYLOSIS BETWEEN THE ATLAS AND AXIS.

There was no history to the case, as the specimen had been obtained in the dissecting-room. It showed a false joint at the root of the odontoid processes, that part being connected with the body of the axis only by ligament. Mr. Shaw believed that the disease which had caused this condition must have taken place in early life, prior to the union of the two parts of the bone. It was not at all likely to have been the result of fracture, as such an accident would in all probability have caused sudden death.

Mr. Shaw also brought before the Society a case of

ENCEPHALOCELE IN AN UNUSUAL SITE.

The infant subject of it, aged four months, was still healthy, and was free from all other defects of development. The encephalocele projected from the base of the skull, just over the bridge of the nose, and was the size of a small egg. The head in other respects was well developed. When quite quiet a faint pulsation might be perceived. During cough an impulse like that of a hernia cerebri might be felt. By pressure, it might be to a considerable extent emptied of its contents, and after the removal of the hand filled only slowly. The nose was not in the least obstructed. Mr. Shaw conceived that it came through the skull by an aperture in the ethmoid bone. The treatment intended to be pursued was by acupuncture merely. The tumour appeared to be slowly enlarging. The patient herself was handed round the room, as also an excellent photogram.

Mr. Sibley next read to the Society a further report on Mr. Balding's specimen of

ULCER IN THE ŒSOPHAGUS.

He reminded the Society that Mr. Balding had exhibited it is an epithelial cancer, but that the Committee appointed to examine it had reported that it was of simple nature. In conjunction with Dr. Goodfellow he had himself examined it carefully, both before and since it was first brought before the Society, and was firmly of opinion that some parts of its structure were characteristically cancerous. The difference of opinion he was inclined to refer to the circumstance, that in certain parts the structure had softened down, and in these only the elements common to inflammatory induration were to be found.

Dr. Goodfellow supported Mr. Sibley's remarks, and added that he had submitted a prepared section of one of the

characteristic parts of the ulcer to Mr. Quekett, who had expressed an unqualified opinion as to its malignant nature. Some specimens were under the microscope on the table, and would he thought fully satisfy any member of the Society.

Dr. Wilks, on behalf of Dr. Brinton and himself (the committee of reference) said they had reported only on what they had seen, and that they had not found any of the elements described. They should be happy to make a further examination.

Mr. P. Price showed

THE HEAD OF THE FEMUR REMOVED BY RESECTION.

The patient was a boy, the subject of hip-joint disease, and in much reduced health. The bone was not dislocated. After division of the capsular ligament, the ligamentous teres was found to have been wholly destroyed. The articular head was denuded of cartilage. The section was made below the great trochanter. The patient has since done well.

Mr. Price also showed a specimen of

NECROSIS OF THE PATELLA.

A woman, aged 30, had been submitted to excision of the knee-joint about a year ago. The patella appearing sound, was left. Subsequently, however, it became diseased, and preventing the healing of the parts, although the long bones were firmly united, it was excised. He thought that the case seemed to indicate the propriety of always removing the patella in the first instance.

Mr. Henry Thompson showed a specimen of

PECULIAR ENLARGEMENT OF THE PROSTATE.

The peculiarity consisted in that the enlargement was almost wholly of the anterior or superior part of the gland. Neither the lateral or third lobes were materially increased in size. The enlargement consisted of isolated tumours embedded in the tissue. Mr. Thompson stated that out of seventy specimens in the Hunterian Museum, only three showed material enlargement of the upper part of the organ. It was a condition of very great comparative rarity. The enlargement in this instance was very great, and had made the introduction of catheters during life very difficult.

Dr. Wilks exhibited three specimens of

FIBROUS TUMOUR OF THE OVARY.

He brought them forward in consequence of there being much difference of opinion expressed during the last session as to the rarity of this form of disease.

The *first* was a large and very dense fibrous tumour of the ovary, weighing between two and three lbs. Its section displayed the curving and concentric fibres such as are seen in the hard tumour of the uterus.

The *second* was an ovarian tumour weighing three lbs., lately sent to Guy's Museum by Mr. Burgess, of Glastonbury; it was of ten years' growth, and was of an uniform fibrous structure throughout.

The *third* specimen came from a woman who lately died in Guy's Hospital, and in whom there was found a tumour of both ovaries, each the size of an ostrich-egg; they contained a few cysts, but the back of their structure consisted of an uniform fibrous tissue.

The specimens, Dr. W. stated, showed the various grades of disease between a solid fibrous tumour and the multilocular cyst. The latter may exist in its simplicity, or, as commonly happens, with some amount of solid growth amongst it; again, this may occur, but with the solid predominating, as in the third specimen exhibited; or with the tumour entirely solid, until it reaches the dense structure of the fibrous tumour of the uterus.

Mr. Squire showed an

ANEURISM OF THE AORTA, WHICH HAD BURST INTO THE TRACHEA.

The aneurism was an uniform dilatation of the aorta. The opening into the trachea was between its sixth and seventh rings. The patient was a man of 56, who for some years had believed himself the subject of heart disease, but had never been under medical care. Difficulty in deglutition had been a symptom during the last month or two. He died suddenly, and when alone, having ejected a large quantity of blood.

WESTERN MEDICAL AND SURGICAL SOCIETY.

November 6, 1857.

Dr. Fuller in the chair.

After the usual routine of business, Dr. Vesalius Pettigrew read a paper upon

TUMOURS.

The author wished it to be understood that this was a continuation of a paper upon a similar subject that he had brought under the notice of the Society three or four years back, and after making observations upon the difficulty of diagnosis, and showing a Table of tumours classified according to their nature, structure and position, he illustrated each class from cases that had come under his own treatment within the last three years, each case being exhibited either by drawing, cast, preparation, or photograph of cutaneous tumours. The case of Miss D. was related—a keloid tumour, arising from the cicatrix in the skin, where an operation had been performed five years previously. Of mucous tumours, several cases of polypus of the uterus were related; one of a very interesting nature, where the polypus previous to marriage had existed in the uterus, but after impregnation had descended into the vagina and was then removed; one of successful treatment of polypus of the nose by means of an ointment composed of equal parts of sulphate of zinc and lard, were mentioned. Fibrous, fatty, and vascular tumours were then shown as having been removed without the slightest pain under the influence of ice and salt, two parts of the former to one of the latter, or where a more intense cold was required, five of ice, two of salt, and 1 of sal ammoniac. Dr. Pettigrew showed a record of 93 operations performed by himself in the presence of many medical men, many of them under congelation. Among these cases were hernia, nævus, cancer, fatty, fibrous, encysted, vascular, and cutaneous tumours, fistula, circumcision, amputation of fingers, superficial and deep-seated abscesses, etc. etc. Of these there were three failures as to the perfect insensibility to pain, and one case only where the incisions, if required, did not unite by the first intention. He felt quite satisfied that two-thirds of the operations performed under the influence of chloroform might be as satisfactorily operated upon under the influence of cold. Of osseous tumours the author related his two cases of partial amputation of the lower jaw, recorded in the *Medical Times and Gazette*. Of cancer, two successful removals; there was also a rare case of gelatiniform or colloid cancer of large size, in the breast. Dr. Pettigrew considered these cases as of a non-malignant character, consisting apparently of lymph and simple cells. A large fungoid tumour of the tibia was shown, where the limb of a lad had been amputated, the whole weighing a quarter of the weight of the boy himself. The paper was concluded by reference to an interesting case of deficiency of the symphisis pubis in a young woman, where the bladder formed a prominent tumour, and from which bladder Dr. Pettigrew removed a large calculus in such a manner that no incontinence of urine had since existed.

UNIVERSITY OF LONDON.

M.D. EXAMINATION, 1857.

First Division.

Andrew Edwyn	University College.
Blake, James Gibbs, B.A. . . .	University College.
Brown, Thomas Edwin Burton . .	Guy's Hospital.
Clapton, Edward	St. Thomas's Hospital
Evans, David Conway	King's College.
Footman, John	University College.
Maudsley, Henry	University College.
Ryan, William Burke	Jervis-st. and Mid. Hosp.
Scurrah, John Dewherst	University College.
Stevens, Henry	King's College.
Thorowgood, John Charles . . .	University College.
Tunzelmann, Julius Woldemar von	University College.

The following is a list of the successful Candidates for Honours.

Physiology and Comparative Anatomy.

Walker, T. J., University Medical Schol. and Gold Medal	University of Edinburgh.
Bond, Francis Thomas, B.A., Gold Medal	Queen's College, Birm.
Sadler, Michael Thomas, B.A.	St. Bartholomew's Hosp.
Lawrence, George William	King's College.
Laurence, John Zachariah	University College.
Anstie, Francis Edmund	King's College.
Ord, William Miller	St. Thomas's Hospital.
Edwards, St. John	University College.
Giles, Samuel, B.A.	Guy's Hospital.

Surgery.

Buzzard, Thomas, University Medical Schol. and Gold Medal	King's College.
Ord, William Miller, Gold Medal	St. Thomas's Hospital.
Fawens, James	University College.
Bond, Francis Thomas, B.A. } *eq.*	Queen's College, Birm.
Laurence, John Zachariah } *eq.*	University College.
Lawrence, George William	King's College.
Cribb, Arthur John	Middlesex Hospital.
Fox, William Tilbury	University College.
Meadows, Alfred	King's College.
Sadler, Michael Thomas, B.A.	St. Bartholomew's Hosp.
Walker, Thomas James	University of Edinburgh.
Whitford, Antony	King's College.

Medicine.

Fox, W. Tilbury, University Medical Schol. and Gold Medal	University College.
Lawrence, G. William, Gold Medal.	King's College.
Edwards, St. John	University College.
Walker, Thomas James	University of Edinburgh.
Fawens, James	University College.
Anstie, Francis Edmund } *eq.*	King's College.
Propert, John Lumsden } *eq.*	King's College.

Midwifery.

Ord, William Miller, Gold Medal	St. Thomas's Hospital.
Meadows, Alfred	King's College.
Cribb, Arthur John	Middlesex Hospital.
Giles, Samuel, B.A. } *eq.*	Guy's Hospital.
Walker, Thomas James } *eq.*	University of Edinburgh.

MEDICAL NEWS.

Apothecaries' Hall.—Names of gentlemen who passed their examination in the Science and Practice of Medicine, and received Certificates to Practise, on Nov. 19 and 26 :—

Grammer, Samuel Richard, Canonbury, Middlesex.
Inman, Joseph Hayton, Yorkshire.
Jepson, George Theophilus, Hampton, Middlesex.
Morgan, James Laurence, Pontrilas, Hereford.
Stacey, George, Hornsey.
Wise, Thomas, Plumsted, Kent.

DEATHS.

Adamson.—Lately, at his residence, Kincardine, aged 88, John Adamson, L.R.C.S., Edin. 1790 ; formerly Surgeon, R.N., &c. Few now survive to connect the present generation with the stirring epoch of the French revolution. Dr. Adamson was born in the same year as Napoleon ; he obtained his diploma at Edinburgh, in 1790, and immediately after joined the Royal navy, and was in active service during the whole period of the revolutionary wars, and for some years after their close. During that time he was employed as surgeon in three frigates and four ships of the line. He was present in Earl Howe's general action with the Channel fleet, June 1st, 1794 ; in that of Sir Robert Calder, July 22nd, 1805, which Sir Archibald Alison describes in his history as "perhaps the most momentous action ever fought by the navy of England." He was engaged at the Cape of Good Hope in 1806 ; Monte Video in 1807 ; and St. Paul's, Isle of Bourbon, in 1809. He was also at the attack of Algiers in 1816. After thirty years' active service, he left the navy, and settled in his native place, Kincardine, where he continued to follow his profession until his advanced age laid him aside from active duty. Even up to the time of his death, he cheerfully gave the benefit of his advice to those who consulted him, especially to the poor, to whom he was ever ready to extend aid—to them often as essentially necessary as medical relief—and who have lost in him a generous benefactor. Until his last brief illness he enjoyed excellent health, and heard as well as ever he had done in his life. His knowledge of his profession kept pace with the advance and improvements of the present day, and up to the very close of his life his time was greatly occupied in perusing our old classic literature, as well as many of the recent publications. By his death his friends have lost a cheerful companion and wise counsellor, whilst all must feel that another link has been broken which connected this generation with momentous events, the actors in which have now almost all disappeared, and their record is to be found only in the page of history.—*Alloa Advertiser.*

Bleakley.—On Sunday week, at his residence, Heigham Grove, in his 40th year, Elijah Bleakley, L.F.P.S. Glasgow, 1838 ; M.D. 1839.

Phillips.—On the 27th ult., in the 51st year of his age, James Phillips, F.R.C.S., Esq. 1852 ; M.R.C.S. 1828 ; L.S.A. 1829.

Prichard.—On the 28th Nov., at Northampton, Octavius Prichard, M.D., late of Chelmsford, in the 73d year of his age.

Thomas.—Lately, at Pont-y-Pridd, Glamorganshire, James P. Thomas, Surgeon, M.R.C.S. Eng., and L.M. 1854.

APPOINTMENTS.

Dr. Cathcart Lees has been elected Physician to the Bank of Ireland, in the room of the late Sir Arthur Clarke, M.D.

George Rolleston, B. M., Fellow of Pembroke College, late Assistant-Physician to the Smyrna Hospital, and the Children's Hospital, has been appointed by the Dean and Chapter of Christ Church to the office of Lee's Reader in Anatomy, vacant by the resignation of Dr. Acland.

Mr. Thomas William Crosse was unanimously elected Assistant-Surgeon to the Norfolk and Norwich Hospital, Nov. 28th, 1857.

The Royal Hospital.—This institution is intended for the permanent cure and comfort of those who by disease, accident, or deformity are disqualified for the duties of life. It was established in 1854, and was till recently located at Carshalton, but the Board have since obtained possession of more commodious premises at Putney. A building fund has been formed, with a view ultimately to erect a dwelling sufficiently capacious for the reception of as large a number of patients as the Board can reasonably hope by the generous contributions of the public to be able to support. For this purpose they have secured an estate of 20 acres at Stoat's Nest, situated on the trunk line of the Brighton and Dover Railway. The third annual meeting and seventh election of patients of the charity was held this week, and the Report showed that, while at the last annual meeting the number of patients was 43, there were now 61 in the institution, and after the election of that day the number would be increased to 71. The receipts for the past year from every source amounted to £3,953 16*s.* 10*d.*

Excision of the Knee-joint.—At the last meeting of the Medical Society of London, Mr. Price brought forward a paper on resection of the knee-joint for articular disease. The subject was divided into four heads. 1. Facts were adduced to prove that the operation could be, with admirable success, resorted to in children of an early age, and that the subsequent results were highly encouraging, There was now no question about its value in adults ; and, although no facts could be advanced, the author was of opinion that a recourse to excision in patients passing from the prime of life was, for many reasons, superior to amputation through the thigh. 2. The importance of a correct understanding as to the condition of the general health of the sufferer before submitting him to such a proceeding was fully considered ; yet the author, from

experience, could contradict the usual opinions, that the operation was one attended with very considerable shock in debilitated patients. It was by no means uncommon to see a patient, who had been for a considerable period a martyr to pain and agony from continued ulceration of the joint, express immediate relief from the operation, and, instead of the vital powers sinking, the contrary effect was to be often noticed. In the third division the nature and extent of the disease was discussed. Water-coloured drawings exhibited the diseases of most uncommon occurrence, taken from cases under the care of the author and various Surgeons. Disease confined to the articulation, malignancy, of course, not included, could always be treated by resection, with but one exception,—diffuse strumous infiltration of the heads of the two cylindrical bones,—provided other circumstances were not incompatible. The extent of morbid action, as a matter of common sense, greatly influences the question of resection. Lastly, the subsequent treatment was dwelt upon at some length. A model of the splint used by the author, with a limb duly dressed, and in position, illustrated the simplicity of the subsequent management; while a reference to many cases in King's College Hospital showed the great advantage to be gained by its use.

St. James's Home for Penitents.—We understand that an Asylum has been opened at Whetstone, Finchley Common, for the reformation of fallen women of a class somewhat superior in point of education, social standing, and comparative inexperience in vice to the great majority of those who are to be found in most of the existing Refuges and Penitentiaries. It is to be called the St. James's Refuge and Home for Penitents, as having originated with the parish of St. James's, Piccadilly, but it will be open indifferently to applicants from all parts of the metropolis or of the country. Accommodation has been provided for 20 penitents, under a Lady Superintendent and an Assistant. The Bishop of London has consented to act as Visitor of the Institution, and the Rector of St. James's will be the President. The want of a House of this peculiar kind has long been felt by all who have had to do with Penitentiaries. At a time when public attention is being more than ever directed to that "great sin of great cities," which has of late years increased to an extent seriously menacing to the health of society, and strenuous efforts are being made to check it by the prosecution of persons keeping houses of ill-repute and the closing of easinos, it is gratifying to find that a regard is being paid to the welfare of poor "unfortunates," who are, after all, in great measure, only the victims of a corrupt state of society, for which every individual is in some degree responsible: any attempt to improve the Penitentiary system, on however small a scale, will be welcomed by all true philanthropists.

Sickness in India.—The following extracts from a letter will be read with interest. "We are left behind in a camp strewn with dead animals in all directions, and with all the filth of three months' encampment. Within one hundred yards of my tent is the church-yard, a very small space, but containing the remains of nearly one thousand men. The graves are like molehills, as close together as they can pack, and on digging a new one the stench that issues is revolting, and the wonder is that a plague has not broken out and taken us all off while we are exposed to these things, the sick included. We have about 4,000 sick and wounded at present. It will rapidly decrease now, I trust, the weather becoming much cooler. Cholera is still carrying off individuals here and there. It has never entirely left us since June. It is a curious thing what a temperate man can undergo in this country. I have been exposed to the sun at all hours, and in the trenches the whole twelve, without any covering; yet I never felt any bad effects. We all take quinine as a preventive of fever, and certainly those who take it regularly escape the attack, or merely have it of an ephemeral type."

An Asylum in an Inundation.—M. Noroy gives a graphic account of the condition of the Avignon Asylum, when assailed by the floods of June 1856. All the moveables and patients had to be as rapidly as possible removed into the higher parts of the buildings and vicinity, without its being possible to maintain the requisite separation of the cases. One alone of the suicidal patients sought to drown himself by plunging in the torrent, but was quickly rescued by an attendant. A few days after a terrible hurricane set in, uprooting trees of more than a hundred years' growth, and damaging the roof of the institution. While this was raging a fire broke out in a new part of the building, which was extinguished only after two hours' hard work on the part of the patients themselves.

Lactation in Africa.—"I have examined several cases in which a grandmother has undertaken to suckle a grandchild. Masina of Kuruman had no children after the birth of her daughter Sina, and had no milk after Sina was weaned, an event which usually is deferred till the child is two or three years old. Sina married when she was seventeen or eighteen, and had twins; Masina, after at least fifteen years' interval since she had suckled a child, took possession of one of them, applied it to her breast, and milk flowed, so that she was able to nurse the child entirely. Masina was at this time at least forty years of age. I have witnessed several other cases analogous to this. A grandmother of forty, or even less, for they become withered at an early age, when left at home with a young child, applies it to her own shrivelled breast, and milk follows. In some cases, as that of Ma-bagosing, the chief wife of Mahure, who was about thirty-five years of age, the child was not entirely dependent on the grandmother's breast, as the mother suckled it too. I had witnessed the production of milk so frequently, by the simple application of the lips of the child, that I was not therefore surprised when told by the Portuguese in Eastern Africa of a native Doctor who, by applying a poultice of the pounded larvæ of hornets to the breast of a woman, aided by the attempts of the child, could bring back the milk. Is it not possible that the story in the 'Cloud of Witnesses,' of a man during the time of persecution in Scotland putting his child to his own breast, and finding, to the astonishment of the whole country, that milk followed the act, may have been literally true? It was regarded and is quoted as a miracle; but the feelings of the father towards the child of a murdered mother must have been as nearly as possible analogous to the maternal feeling; and, as anatomists declare the structure of both male and female breasts to be identical, there is nothing physically impossible in the alleged result. The illustrious Baron Humboldt quotes an instance of the male breast yielding milk; and though I am not conscious of being over-credulous, the strange instances I have examined in the opposite sex make me believe that there is no error in that philosopher's statement."—*Livingstone's Travels.*

Cultivation of Opium in France.—The experiments making near Amiens in the culture of the poppy continue to render satisfactory results. While during the years 1853-56 the quantity of morphine furnished by 100 parts of opium has progressively increased from 14·57 to 22·00, the proportion has risen in 1857 to 23·56.

VITAL STATISTICS OF LONDON.

Week ending Saturday, November 28, 1857.

BIRTHS.

Births of Boys, 803; Girls, 797; Total, 1600.
Average of 10 corresponding weeks, 1847-56, 1486·9.

DEATHS.

	Males.	Females.	Total.
Deaths during the week	664	709	1373
Average of the ten years 1847-56	..	..	1183
Average corrected to increased population	...	..	1301
Corrected average for corresponding week in ten years 1847-56	588·9	594·4	1183·3
Deaths of people above 90	5	2	7
Deaths in 13 General Hospitals	33	23	56

METEOROLOGY.

From Observations at the Greenwich Observatory.

Mean height of barometer	29·575 in.
Mean temperature	41·6
Highest point of thermometer	55·3
Lowest point of thermometer	30·5
Mean dew-point temperature	39·7
General direction of wind	Variable.
Whole amount of rain in the week	0·78
Amount of horizontal movement of air in the week ...	535 miles.

DEATHS IN SUB-DISTRICTS FROM EPIDEMICS.

	Population. 1851.	Measles.	Scarlatina	Hooping-Cough.	Diarrhœa.	Cholera.	Typhus.
West	376,427	2	9	5	1	..	6
North....	490,396	5	11	15	2	..	7
Central ..	393,256	12	4	18	4	1	5
East	485,522	14	11	10	1	1	15
South	616,635	5	8	10	7	.	6
Total..	2,362,236	38	43	58	15	2	39

DEATHS REGISTERED DURING THE WEEK.

Causes of Death.	In the Week ending Saturday, Nov. 28, 1857. Deaths of Persons. At all Ages.	Under 20 Years of Age.	At 20 and under 40 Years of Age.	At 40 and under 60 Years of Age.	At 60 and under 80 Years of Age.	At 80 Years of Age and Upwards.	Averages of Temperature and Deaths in 10 Weeks.
Mean Temperature.....	Mean temp. 41°6						40°3
All Causes	1373	642	179	207	263	82	1183·3
Specified Causes	1372	641	179	207	263	82	1178·2
Diseases:—							
1. Zymotic Class	233	183	21	13	11	5	267·8
2. Dropsy, Cancer, and others of uncertain seat	39	9	3	15	12	..	51·6
3. Tubercular Class	206	59	78	57	12	..	185·1
4 Of Brain, Nerves, etc. ..	140	60	11	25	39	5	128·1
5. Of Heart, etc.	49	3	8	19	16	3	45·2
6. Of Respiratory Organs ..	390	201	19	45	106	19	262·4
7. Of Digestive Organs ..	64	22	8	15	16	3	59·9
8. Of Kidneys, etc.	16	..	5	6	2	3	13·4
9. Of Uterus; viz. — Puerperal Disease, etc. ..	10	..	9	..	1	..	9·1
10. Of Joints, Bones; viz.— Rheumatism, etc. ..	5	..	1	1	3	..	8 8
11. Of Skin, etc.	3	2	1	..	..	..	2·3
12. Malformations	4	4	..	..	..	..	4·8
13. Debility from Premature Birth, etc.	40	40	..	..	..	..	27·3
14. Atrophy	44	34	1	3	6	..	27·4
15. Age	75	..	..	..	33	42	47·9
16. Sudden	12	6	2	3	1	..	9·5
17. Violence, Privation, etc...	42	18	12	5	5	2	27·6
Causes not specified.. ..	1	1	..	..	..	..	5·1

BOOKS RECEIVED.

Missionary Travels and Researches in South Africa. By D. Livingstone, LL.D. D.C.L. etc. London. 1857.

The Rambles of a Naturalist on the Coasts of France, Spain, and Sicily. By A. de Quatrefages. In 2 Vols. London. 1857.

Handbook of the Science and Practice of Medicine. By W. Aitken, M.D. London and Glasgow. 1857.

A Treatise on Rheumatic Gout, or Chronic Rheumatic Arthritis of all the Joints. By Robert Adams, M.D. M.R.I.A. etc. With an Atlas of Illustrations. London. 1857.

Catalogue of the Antiquities in the Museum of the Royal Irish Academy. By W. R. Wilde, M.R.I.A. Dublin. 1857.

Johnston's Atlas of Human Anatomy and Physiology, and Handbook to the Atlas. By W. Turner, M.R.C.S. Edinburgh. 1857.

Braun on Puerperal Convulsions. Translated by Dr. M. Duncan. Edinburgh. 1857.

Lesions of the Epiglottic Cartilage. By Horace Green, M.D. New York. 1857.

Outlines of Fever. By R. D. Lyons. Dublin. 1857.

A Manual of the Practice of Medicine. By T. H. Tanner, M.D. F.L.S. Third Edition. London. 1857.

Handbook of Chemical Manipulation. By C. G. Williams. London. 1857.

On the Introduction of the Sponge-armed Probang into the Larynx and Trachea. By Horace Green, M.D. New York. 1857.

Report on the Medico-Legal Duties of Coroners. By Alexander J. Semmes, A.M. M.D. Philadelphia. 1857.

On Spinal Curvature. By P. G. Hamon. London. 1857.

Amputations and Artificial Limbs. By W. R. Grossmith. London. 1857.

On the Use and Abuse of Tobacco. By John Lizars. Seventh Edition. Edinburgh. 1857.

On Consumption, its Nature, Symptoms, and Treatment. By R. P. Cotton, M.D. Second Edition. London. 1857.

On Epilepsy and Epileptiform Seizures. By E. H. Sieveking, M.D. London. 1857.

The Veterinarian. No. 360. December. 1857. London.

TO CORRESPONDENTS.

Dr. Griffin's report of the case of Mr. Stafford is unavoidably delayed, as the Doctor has been suffering from a severe attack of influenza.

Mr. Tufnell.—Many thanks.

A Lincolnshire Surgeon.—The analysis shall be made.

Mr. Davey's reply to Dr. Letheby is unavoidably delayed until next week.

Dr. Young, of Clapham Common, contradicts the report of the death of Mr. J. B. Allen, Assistant-Surgeon, given in the Bombay Gazette.

Incertitudo.—1. Wilson on Diseases of the Skin; Levy's Hygiene. 2. It would be better to enter one of our public services, or obtain employment in one of the large steam-ship companies.

An Old Subscriber.—The exact composition of Squire's solution of bimeconate of morphia is not known.

The letter of "M.D. Hibernicnsis" is unavoidably postponed.

Mr. Bacot will find the perineal operation for the relief of prolapsus uteri fully described in former volumes of this Journal.

Artificial Respiration.

TO THE EDITOR OF THE MEDICAL TIMES AND GAZETTE.

Sir,—On reading Dr. Silvester's letter in one of your late numbers, I was struck by the apparent simplicity and applicability of the method for "Artificial Respiration," he there proposes; however, on thinking it over it did not appear quite so natural as I at first supposed. I therefore resolved to try his "Natural Method" on the dead body, and though I have not been able as yet fully to carry out my experiments I have arrived at the following results:—

First, that in ordinary cases the process cannot be performed in the prone or supine position; therefore, Secondly, for its proper performance more than one person is required. Thirdly, there is great danger of dislocation of the head of the humerus downwards and forwards. Fourthly, that an exceedingly small amount of air is respired.

Hoping that you will have the kindness to insert this in your next imprint, I am, &c.

St. George's Hospital. Studens.

COMMUNICATIONS have been received from—

Dr. Andrew Smith; Dr. Adams, Dublin; Dr. Todd; Mr. Wharton Jones; Lord Panmure; Dr. Griffin, Limerick; Mr. Toynbee; Mr. Price; Dr. Leared; Mr. Jolliffe Tuffnell; Dr. Mackenzie; Dr. Mathews; Dr. Frank, Fort Napier, Natal; Mr. R. Phelps; Mr. Baker Brown; Mr. H. Coote; Mr. Dallas; Mr. Dillon; Mr. Dunbar; Dr. Elliot; Mr. M'Donnell; Dr. Baines; Mr. Aveling; Dr. Cotton; Mr. Beatty; Dr. M'William; Secretary, General Board of Health; Mr. Gamgee; Dr. M'Donnell; Mr. Yearsley; Mr. Craven, Hull; Mr. Crosse; Mr. Bowles; Mr. A. W. Marshall; M. Charriere; Dr. J. Bremner; Medicus; Mr. M. Tomlinson; Mr. Farmer; Messrs. Leggatt, Hayward, and Leggatt; Rev. J. R. Byrne; Mr. M'Dermott; Mr. Bryant; Mr. Sanson; Mr. Walters; Mr. Gover; Dr. Bagnell, Pau, Pyrenees; Mr. Hughes; Mr. Barlow; Mr. Bacot; Dr. Hillier; Mr. Rawes.

APPOINTMENTS FOR THE WEEK.

5. *Saturday (this day).*

Medical Society of London, 8 p.m.: Dr. Savage, "On the Erectile System of the Female Generative Organs."

Operations at St. Bartholomew's, 1½ p.m.; St. Thomas's, 1 p.m. King's 2 p.m; Charing Cross, 1 p.m.

7. *Monday.*

Royal Institution, 2 p.m.: *General Monthly Meeting.*

Epidemiological Society, 8 p.m.: Dr. Odling, "On the District Mortality of London."

Operations at the Royal Free Hospital, 1 p.m.; Metropolitan Free Hospital, 2 p.m.; Orthopædic Hospital, 3 p.m.

8. *Tuesday.*

Royal Medical and Chirurgical Society, 8 p.m.. *Ballot.* Dr. H. R. Silvester, "A Contribution to the Science of Teratology." Mr. Hulke, "On the Pathology and Morbid Anatomy of Glaucoma."

Operations at Guy's, 1 p.m.; Westminster, 2 p.m.

9. *Wednesday.*

North London Medical Society, 8 p.m.: Dr. Hare, "On Moveable Kidneys."

Operations at University College Hospital, 2 p.m.; St. Mary's, 1 p.m. Orthopædic Hospital, 3 p.m.

10. *Thursday.*

King's College, London, 8 p.m.: Mr. Horton, "On Intermittent Fever."

Grosvenor-place School Medical Society, 7½ p.m.

Operations at St. George's, 1 p.m.; Middlesex, 12½ p.m.; Central London Ophthalmic, 1 p.m.; London, 1½ p.m.

11. *Friday.*

Operations at the Moorfields Ophthalmic, 10 a.m.; Westminster Ophthalmic, 1½ p.m.; Great Northern. 2½ p.m.

EXPECTED OPERATIONS.

King's College Hospital.—The following operations are expected at this Hospital to-day (Saturday), at 2 o'clock:—

Excision of knee; for procidentia uteri; for diseased carpus; removal of cyst from head; removal of tumour from face; by Mr. Fergusson.

DR. COLLIS BROWNE'S CHLORODYNE,

MEDICAL PROPERTIES—Sedative, Anodyne, Antispasmodic, Astringent, and Diuretic.

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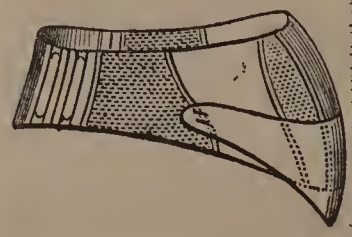

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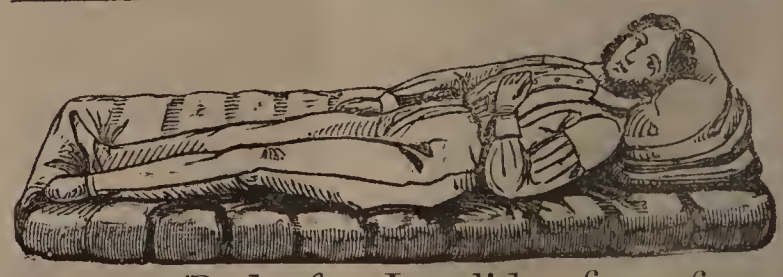

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ORIGINAL LECTURES.

A CLINICAL LECTURE ON CONICAL CORNEA, AND ON PHLEGMONOID ERYSIPELAS IN THE REGION OF THE LACHRYMAL SAC.

DELIVERED AT

University College Hospital,

By T. WHARTON JONES, F.R.S.

Professor of Ophthalmic Medicine and Surgery, and Ophthalmic Surgeon to the Hospital, etc.

Gentlemen,—I wish, in the first place, to bring under your notice to-day a case of conical cornea, a defect of the eye by no means of common occurrence.

Conical cornea consists in a change of shape with increased prominence of the cornea. In the natural state the curvature of the convexity of the cornea is, you are aware, not exactly spherical, though it may look so to the observer, but probably ellipsoidal. In the case before us, the cornea is like a blunt cone. The deformation is more marked in the left eye, less so in the right.

It is to be observed that there is no change in the transparency of the cornea, and no appearance of inflammation of the eyes. Without special examination, therefore, the nature of the case might have escaped detection.

The patient is a young woman of 22, who came to the Hospital last Friday complaining of great short-sightedness. On trial we found she could see to read the Infirmary card with the right eye only at a distance of two or three inches, while with the left eye, which is that in which the conical deformation of the cornea is most developed, she could not read at any distance.

On glancing at the eyes, I immediately recognised the characteristic sparkling appearance produced by the peculiar mode in which the prominent cornea reflected the light. And a profile examination of the eyes at once completed the diagnosis.

With the help of a concave glass, No. 14, the patient was enabled to read the Infirmary card with the left eye; while with a concave glass, No. 12, she could read with the right eye at a greater distance than before.

The patient appears to have suffered from some kind of fever three years ago, accompanied by severe pains, and occasionally delirium. Since then, the short-sightedness came on, and has been gradually increasing until it has attained the existing degree of development.

The patient appears otherwise healthy, but not strong; and she presents, though not in a marked degree, a flabby condition of skin, with enlargement of the sebaceous follicles, which I have remarked in other cases of conical cornea. The practical importance of recognising the nature of a case of conical cornea is that you may not be led into the adoption of treatment which can be of no use. I have heard of a case of a patient consulting a Medical man in London, who, without examining the eyes properly, prescribed for the defective sight as if it had been owing to some other cause. Whereupon the patient observed, "But they tell me in the country that I have conical cornea!"

Conical cornea can scarcely be confounded with any other prominence of the cornea, such as partial staphyloma, hernia of the cornea, or prominent cornea from corneitis, because all these are the result of inflammation, and may be still accompanied by inflammatory symptoms. Conical cornea may indeed chance to be accompanied by some degree of inflammation, but this is not common. And there may be some slight opacity at the apex of the cone, which, however, is nothing at all like the opacity in partial staphyloma, in which latter, moreover, the pupil is dragged, distorted, and contracted; whereas in conical cornea, both iris and pupil are natural.

We sometimes meet with cases of spherically prominent cornea from corneitis, in which, the inflammation having subsided, the cornea has again become clear; but the history of the case points out at once its nature; and the slightest examination of the eyes is sufficient for the recognition of the spherical prominence, so that it cannot be mistaken for conical cornea. In cases of conical cornea in which there has been an opportunity to examine the eyes after death—of course from some other cause, such as phthisis—the cornea has been found thinned in the situation of the apex of the cone, and either of natural thickness, or actually thickened at the circumference.

In regard to treatment:—In the slighter degrees of prominence concave glasses help the sight, as in this instance. But experience has not hitherto taught us any means of reducing the prominence of the cornea, and restoring it to its natural curvature. In patients affected with conical cornea, tonics are usually indicated for their general condition. That tonics, however, or alteratives, or any other remedies, general or local, which have been tried, exert any influence in arresting the deforming process, we cannot say, because we seldom have a case of conical cornea sufficiently long under notice to determine.

In extreme cases, in order to improve the sight somewhat for the time, dilatation of the pupil by belladonna has been recommended, on the principle that rays of light being thereby allowed to enter the eye through the less deformed circumferential part of the cornea, they will be more uniformly refracted, and therefore will form more defined images on the retina. I have, however, found the sight become dimmer after the use of belladonna.

On the same principle, the operation of dislocating the pupil from opposite the apex of the cone, by prolapsing a portion of the iris through a puncture at the circumference of the cornea, has been put into practice with some benefit, but it is scarcely an operation to be much recommended.

In conclusion, I have to observe that removal of the lens, whether cataractous or not, as proposed and practised by the late Sir William Adams, has not been found by others of use, which might have been expected, as a concave glass was likely to afford all the assistance which removal of the lens could by possibility do.

The next case to which I would direct your attention is one of phlegmonoid erysipelas in the region of the lachrymal sac, which came on in a person in whom acute inflammation of the lachrymal sac supervened on a previously existing chronic inflammation.

Inflammation of some part of the derivative lachrymal passages, especially in the chronic form, is so common that we have always several cases of the kind under treatment.

One effect of the inflammation, you are aware, is tumefaction of the lining mucous membrane, and this causes obstruction in some part of the course of the passages. The tears, being thus prevented from being drawn off into the nose, accumulate in the eye, which therefore appears to swim in tears; while every now and then they drop down over the cheek.

This dropping of the tears from obstruction in the derivative lachrymal passages is called stillicidium lachrymarum. It is also often, though improperly, called fistula lachrymalis, there being no fistula in the case. I shall advert immediately to the kind of case properly called "fistula."

In nasal catarrh, the lachrymal passages are apt to be more or less affected, and the consequence is the swimming of the eye in tears, which so often accompanies the attack; but, as the cold in the head subsides, the free passage of the tears is restored. But it may happen that a repetition of such attacks, especially in scrofulous constitutions, shall leave the passages in a chronic blennorrhœal state.

Chronic inflammation, or blennorrhœa of the lachrymal sac, may come on in this manner quite imperceptibly, or it may succeed to an attack of acute inflammation, or, as is frequently the case, it is a sequela of the exanthemata.

With wateriness of the eye there is chronic inflammation of the palpebral conjunctiva; and, on examination of the region of the lachrymal sac, a fulness is perceived, on making pressure over which, tears, mixed with puriform mucus, escape by the puncta lachrymalia.

After the sac has been thus emptied through the puncta, the eye remains free from stillicidium, until the sac again becomes filled with tears, for it is to be observed that the puncta and canaliculi usually continue to perform their office of transmitting the tears to the sac.

In such cases of chronic inflammation of the derivative lachrymal passages an acute attack, with abscess of the sac, may supervene from exposure to cold, etc.

In acute inflammation there is a hard swelling over the sac, red, and extremely painful to the touch, with great œdema of the eyelids and neighbouring parts.

The canaliculi and nasal duct participating in the inflammation, are closed by tumefaction of their lining membrane in an early stage of the attack, so that the matter in the sac cannot be pressed out, but accumulates there. Left to itself, the abscess points and bursts. It is the fistulous opening which thus results that constitutes a true fistula of the lachrymal sac. This condition, you will perceive, is quite different from simple stillicidium lachrymarum, which, I have remarked, is sometimes improperly called fistula lachrymalis. But to recur to our case of phlegmonoid erysipelas in the region over the lachrymal sac.

The patient, a woman of about 38, rather delicate-looking, had been nursing her baby for the last twelve months. She had previously long laboured under chronic blennorrhœa of the lachrymal sac on the right side, and had been in the habit of pressing out by the puncta the puro-mucus and tears as they accumulated in the sac.

Having caught cold, acute inflammation of the lachrymal sac supervened, with chronic inflammation, and she was compelled, by the severity of the symptoms, to apply for relief at the hospital.

On examination, I found the lachrymal sac hard, and very painful to the touch, but not greatly distended with matter. There, was, however, erysipelatous inflammation of the skin over the sac, with great swelling and œdema of the eyelids and cheek.

The patient was ordered three grains of blue pill, and two of extract of hyosciamus, and told to apply warm fomentations to the part.

When we next saw the patient, two days after, we learned that she had been suffering from very great pain and depression, and on examination found a diffuse abscess in the region over the sac, extending into the lower eyelid and cheek. On the left side the eyelids had become œdematous. I made a free incision with a lancet through the skin into the subjacent cellular tissue over the sac, and evacuated some thickish matter. Besides this incision, I made two or three punctures through the skin of the lower eyelid and cheek, from which a white milky matter and blood escaped. After this, the application of warm cataplasms was ordered, and eight grains, twice a-day, of the powder 91 (rhubarb, soda, et hydrarg. c. cretâ.)

When the patient was next seen, three days after, she was free from pain, the swelling of the eyelids and cheek had subsided, and there remained merely some redness and swelling over the sac where the incision had been made through the skin.

It will be observed that in this case the lachrymal sac was the part first affected, but that in the subsequent course of the disease it was the skin and subjacent cellular tissue in which the development of the inflammation took place. The case, in fact, was one of phlegmonoid erysipelas, the diffuse abscess which formed in which being what the older Surgeons called Anchilops.

Had the case been left to itself, the abscess would have burst externally, and given out matter mixed with blood and sloughy cellular tissue, leaving a sinuous ulcer, the Ægilops of the older Surgeons.

At the commencement of the acute attack of inflammation of the lachrymal sac, in consequence of the supervening tumefaction of the lining membrane of the lachrymal canaliculi, matter no longer admitted of being pressed from the sac through the puncta. This state of matters, and the hardness and tenderness of the sac still continue, but the sac is not further affected ; there has been no abscess of it.

Sometimes, it may be observed that in such cases ulceration proceeds from the sinuous ulcer inwards, and perforates the wall of the lachrymal sac, giving origin to what has been called spurious fistula of the lachrymal sac.

Nothing of the kind has taken place here, and I expect that shortly matters will resume their former state, that is, the case will return to what it was before, viz., one of chronic blennorrhœa of the lachrymal sac. The question will then arise, what should be done for it ?

At present the patient is taking quinine, and using warm fomentations to the part.

As we have several cases of chronic blennorrhœa of the lachrymal sac at present attending the Eye Infirmary, I shall, in reference to this question, take them as a text to discourse from.

I have observed that there is always some degree of chronic inflammation of the palpebral conjunctiva in these cases, and that, therefore, we find it necessary to order the use of the bichloride of mercury lotion to the eye; and in order that the lotion may act also on the lining membrane of the lachrymal passages, the patient is directed to evacuate the accumulated tears and puro-mucus through the puncta by pressure over the sac previously to using the eyewater, a little of which is at the same time directed to be kept collected at the inner cornea for a minute or two, in order that some of it may be taken up by the puncta. We usually order also the weaker red precipitate ointment to the edges of the eyelids at bedtime, and a blister behind the ear occasionally. Sometimes a leech or two to the entrance of the nostril.

As to general treatment.—Tonics are very commonly required ; bark or quinine, iron, cod liver oil. In some instances iodide of potassium has been of much use.

Although by such treatment great relief is frequently afforded, the chronic blennorrhœa of the lachrymal sac with wateriness of the eye is in a large proportion of cases not removed. Attempts have therefore been made to do something more effectual by operation.

It has been fancied that the introduction of the fine probes —known by the name of Anel's probes—by the upper punctum along the upper canaliculus, through the sac, and down the nasal duct might have the effect of rendering or assisting to render free, the obstructed passages, but this not very well warranted expectation has not been realised. And the improvement that may have occurred in any case during the use of such probes, I have no hesitation in saying would have accrued from the more simple and less injurious treatment which I have indicated. I say injurious, because it is not to be concealed that much damage has been sometimes inflicted on the puncta and canaliculi by the reckless use of probes.

Again, it has been fancied that the direct injection of a lotion by means of Anel's syringe, with a very fine nozzle, through the puncta and canaliculi, into the lachrymal sac would operate more effectually than a lotion applied in the manner we usually direct it, but experience has not given the stamp of value to the practice.

The operation in most common use is the insertion of a gold or silver style into the nasal duct, through an opening made by incision of the sac or by enlargement of a fistulous opening, if such already exists. The style is worn for an indefinite time, but should be taken out occasionally to be cleansed, and to allow of some lotion to be injected into the sac and nasal duct by means of Anel's syringe with a larger nozzle, introduced through the opening in the sac.

Instead of a prolonged use of the style, the introduction of a common Surgeon's probe and its retention in the duct for about a quarter of an hour every day, or every second day for some weeks, has of late been preferred by Dr. Mackenzie of Glasgow.

A plan which was in use last century, and which was revived about thirty years ago, and on the recommendation of the late Baron Dupuytren extensively but very indiscriminately practised, was the introduction of a tube, such as this which I show you, by its conductor or handle, into the nasal duct and the closure of the opening in the sac by which it was introduced. By this proceeding we have, in cases fitted for the operation, apparently a beautiful and speedy cure. In cases in which the patient had long suffered annoyance from the complaint, I have inserted a tube into the nasal duct, and the opening into the sac has closed by the first intention in two or three days. The patient has been thus entirely relieved from all inconvenience, and been unconscious of the existence of any foreign body in the sac and duct. Moreover, I have seen the patient at the end of two years still quite well. Such is the favourable aspect of the operation ; but behold the unfavourable aspect ! severe inflammation and pain comes on ; the swelling of the lining membrane of the nasal duct, perhaps, forces up the tube ; this presses against the wall of the lachrymal sac, and an abscess forms at the place, or the tube makes its way downward into the nose—sometimes through the palate plate of the superior maxillary bone. If the tube, instead of being gold, has been silver it may after some time fall out by the nose in black fragments.

ORIGINAL COMMUNICATIONS.

ON THE DIFFERENTIAL DIAGNOSIS OF ACUTE LARYNGITIS,

AND THE

FEIGNED LARYNGITIS OF HYSTERICAL WOMEN.

ABSTRACT FROM A CLINICAL LECTURE

By WM. JENNER, M.D.

Physician to University College Hospital, the Hospital for Sick Children, &c. &c.

No class of cases are more calculated to test our acumen and practical skill than the hysterical, and for this among other reasons, viz., that there is scarcely a disease manifested by symptoms appreciable only by the patient, or by abnormal movements of parts over which the will in health exercises control, that the hysterical female may not simulate. He who has seen much practice, and possesses a little tact, may often detect these cases at a glance; but even he is sometimes deceived for a time, and to the young practitioner they are generally very puzzling. A disease every now and then simulated by hysterical females is acute laryngitis. Now acute laryngitis is a very dangerous affection, and to confound the hysterical simulacrum with the real disease may be to endanger even the life of your patient; for when acute laryngitis is very severe, we occasionally have to open the trachea, and to open the trachea of a healthy woman is certainly to place her life in some danger. It is with reference to the diagnosis of this hysterical affection that I desire to recall to your minds the case of the woman who lately lay in the last bed in ward No. 3. I directed your attention to her at the time she was in the Hospital. Now I am about to explain to you, more fully than I could at the bedside, the grounds of my opinion that the disease under which she laboured was not what it at first sight appeared, and was even by some supposed to be, viz. severe laryngitis.

The woman in question was admitted into the Hospital in the early part of the afternoon, because she was supposed to be suffering from laryngitis. About 4 p.m. so severe did the symptoms appear that I was sent for; and Mr. Quain being in the Hospital, was requested by my excellent assistant, Mr. Morgan, to see the patient, it being a question whether the larynx ought to be opened.

On entering the ward I heard, long before reaching the patient's bed, around which some of you had assembled, the loudest tracheal breathing. The patient, a stout, anæmic-looking woman, was lying with her head thrown back over the pillows, against which she was leaning her back, and which had been placed on her entrance so as to support her in a sitting position. Her eyeballs were turned, the right upwards and outwards, the left upwards and inwards, just as they are directed by those who *desire* to appear *very* bad. There was no lividity of the face; no purple hue of the lips; no evidence of imperfect aëration of the blood. At the same time the pulse was firm, full, and only 84.

These symptoms alone decided Mr. Quain and myself to put aside all idea of opening the air passage for the present at any rate.

Had the woman been faint (as from her position and expression might at first sight have been supposed) the lips, &c. might not have been livid, even though very great impediment had existed to the entrance of the air into the lungs. But her heart was acting so steadily and so strongly as to exclude altogether the notion that the absence of lividity was due to fainting, and therefore, notwithstanding the noisy tracheal breathing and the orthopnœa, from which she had suffered ever since her admission, it was manifest that abundantly sufficient air for the due aëration of the blood entered the lungs; and of course if air entered in sufficient quantity by the glottis no good end could be served by making an opening into her trachea. After settling this point you may remember I laid bare the patient's thorax that I might watch its movements; and what did we see? At each inspiratory effort there was some recession of the supra-clavicular regions, a little deepening of the supra-sternal fossæ, and trifling narrowing of the costal angle occasioned by the falling inwards of the lower ribs and their cartilages. These facts indicated that the diaphragm descended more rapidly than air entered by the larynx, and, consequently, as the inspiratory act was rather slowly performed, they indicated that there was some impediment to the free entrance of the air into the lungs. But as the recession was everywhere trifling the same facts also indicated most conclusively, that the impediments to the entrance of the air was not extreme. So now we had proof that the noise was out of proportion to the structural change in the larynx, supposing *any* such to exist.

When the woman answered my questions she did so in a faint whisper, but although very feeble the voice was not hoarse. Now had the larynx been the seat of disease sufficient to produce the tracheal breathing, hoarseness would assuredly have been present. Here then was another discrepancy in the symptoms.

On placing the stethoscope over the larynx the sound produced by the passage of the air through it was rougher and louder than natural, but it was only when the stethoscope was placed near to the angle of the jaw, that is to say, above the larynx, that the very loud tracheal breath sound was well heard. Here was its point of greatest intensity. Thus, then, it was demonstrated that the sound which gave to the case its chief alarming feature was generated in the pharynx, *i.e.* in a part, the muscles of which are in a great measure under the control of the will.

When the larynx is the seat of intense acute inflammation the epiglottis is commonly involved, and then, in many cases, by the aid of a firm tongue depressor, and a good light, you can see the red and erect epiglottis. I thought it right to determine, if I could, its condition in this case, as well as to inspect the pharynx. For the purpose of persuading the patient to exert herself enough to assume a posture convenient for my object I sprinkled her pretty freely with cold water, and with very good effect. On placing the depressor on her tongue she closed her mouth and resisted for some seconds with her mouth closed all my efforts to inspect the pharynx,—another proof that there was no great impediment in the larynx to the free passage of the air through it. For had there been such, the desire for air would have been stronger than the will to resist my efforts. The will was now employed in directing the efforts requisite to resist me, and the consequence was cessation of the voluntary exertion of the muscles of the pharynx, and the free passage of the air through the nares and pharynx into the larynx, and thence into the lungs.

When I did succeed in my endeavours, only a little more redness than natural of the mucous membrane covering the arches of the palate was perceptible. I now learned that the present attack was of two or three days' duration;—that she had one such attack some months before;—that the catamenia had been suppressed for nine months. As no one came with the patient to the Hospital, as she spoke in a faint whisper only, and with seeming difficulty; as the symptoms appeared so urgent, and the nature of the disease—viz., acute laryngitis—was supposed to be clear, no good history of the case was obtained on admission.

You will remember my mentioning that I had seen a case very like to this in the early part of the year, which was under the care of two highly educated and able, but rather young, practitioners. In that case, I told you it was supposed that the trachea must be opened; but a dose of opium placed the patient in a sound sleep, during which the breathing was so tranquil, that the idea of severe laryngitis was laid to rest. I determined to place this patient under the influence of opium. She did not fall asleep till she had taken some 60 m. of laudanum. When asleep, her respirations were in every way tranquil. The next day a mental tonic, so administered as to lead her to express her regret that she had ever entered the Hospital, and to cause the nurse even and the patients around, who pitied her apparent sufferings very much, to think me most unkind, and a dose or two of calomel and colocynth completed the cure. You will remember that I learned, on the second day of her residence in the Hospital, that this woman was the very same I saw with my two friends in the spring, and to whom I had likened her symptoms on admission. I told you at that time that she had, however, advanced a step in the art of simulating laryngitis since I last saw her; for then there was no recession of the chest-walls during inspiration. Now, there was enough recession to prove that she did really impede the full entrance of the air into her lungs, by

voluntarily narrowing some part through which the air has to pass before entering the lungs.

One word more on the treatment. Leeches had been applied to the throat, and calomel and antimony prescribed every three hours, before I saw the woman. Had I known her to be my old friend, I should have tried the physical effects of a cold douche, and the mental influence of a very decided expression of opinion on the symptoms. But while I felt confident that the case was one mainly of hysteria, I did not feel so sure, as I should have done had I recognised her, that it might not be an hysterical exaggeration of slight catarrhal inflammation of the mucous membrane of the larynx; so I allowed the medicine she was taking to be continued till I saw the effect of a full dose of opium and a large turpentine enema.

Now, in conclusion, let me sum up my reasons for having regarded the case as one of simulated, and not real laryngitis.

1st. If the sound heard at the bedside had been generated in the larynx, it would have indicated disease of that organ, interfering seriously with the free passage of air through it.

2nd. The expression was that of a person feeling faint, or desiring to look very bad, and not the anxious look of impending suffocation.

3rd. There was no lividity, at the same time that the heart proved by its action that the patient was not fainting.

4th. The small amount of the recession of the more flexible parts of the thoracic walls during inspiration demonstrated absolutely that no great impediment existed to the entrance of the air into the lungs.

5th. The voice, though reduced to a whisper, was not hoarse.

6th. The direct evidence afforded by the stethoscope was in favour of the sound being generated in the pharynx.

7th. The fact that the patient could breathe without difficulty for several seconds with her mouth voluntarily closed, pointed to the absence of any organic impediment to the free passage of the air through the larynx.

One word of warning. I once saw a Physician, of deservedly high reputation, mistake a case of tubercular meningitis for hysteria, because some well-marked hysterical phenomena were present; and I shall have occasion at my next Lecture to refer to a case of typhoid fever, in which the co-existence of hysteria gave peculiar features to the case.

CASE OF THE LATE

AUGUSTUS STAFFORD, ESQ., M.P.

By DANIEL GRIFFIN, M.D.

As the published accounts of the illness of the late Mr. Stafford were in many respects meagre, and might involve the suspicion of carelessness or inattention during my attendance on him, I am anxious the Profession should have a more clear and detailed account of the case.

The first time I was called to Mr. Stafford professionally was in October, 1856, at Moore's hotel in this city. He was lying on the hearth-rug before the fire, and writhing and moaning in great agony. On inquiry, I ascertained that he had stopped there on his way from Cratloe to Tipperary; that he had eaten heartily a short time before, and was immediately seized with the pain. I ascertained also that he was apt to eat too rapidly, and bolt his food, but he did not explain to me then, though I asked him particularly about his state, the occasional existence of gravel, nor that other affection of the kidneys, a kind of diabetes insipidus or chronic diuresis, in which enormous quantities of a pale fluid were secreted, though to both these complaints he had been subject for a considerable time previously, and, as I have been since informed, could scarcely, when the last-mentioned state was not present, take a glass of wine without its producing suppression of urine. I gave him immediately a full dose of laudanum and hyosciamus, about 50 drops of each, had him conveyed up stairs to bed, and hot bottles put to his feet, and hot fomentations to his stomach. The pain shot from the epigastrium towards both sides, but nearer to the ribs than the back of the colon, and was unattended by the least tenderness or increased pain on strong pressure even over the gall-bladder and biliary ducts—a very unusual circumstance in such cases. His tongue was yellow, his pulse calm at 72, and very substantial and firm. After a time the pain became violently aggravated, and I repeated the dose, but without the least effect in relieving him. It then occurred to me that as he had dined recently, and rapidly as was his wont, it was probable its obstinacy arose from some irritating matter in the stomach; and I gave him 20 grains of ipecacuanha, with 10 grains of sulphate of zinc, which was repeated twice before it acted, and then only with the assistance of quantities of tepid water. He got rid of large masses of undigested meat and other food; this gave yet but very partial relief; however, the anodynes then succeeded, though they had to be repeated two or three times in the same full doses before the pain went down. I was with him altogether three hours. He was up early the next day—felt quite well, went on his journey, and no after effect followed. There was therefore a very complete tolerance of the anodynes on this occasion. On Wednesday, the 4th of this month (November), I was sent for with great urgency to see him. His own servant, who came to me about 5½ p.m., requested me not to make a moment's delay, as the pain was worse, and longer continued than usual, and to bring whatever was necessary. I took some laudanum, ether, and tinct. of hyosciamus, and three emetic powders with me, and was there about a quarter or twenty minutes past six. He was lying on the bed in his room, writhing and tossing in great agony—he was changing his position every moment, and groaning and moaning, with every appearance of the severest suffering. His pain was so acute that he was not able to answer my questions satisfactorily, and seemed to lose all patience at its long continuance. His tongue was slightly coated and yellow, his limbs warm, his pulse calm at 72, and very firm and unyielding. His bowels had been slightly moved in the early part of the day, and he had passed some water, but none was there then for examination. The pain occupied the same track I described on the previous occasion, and as before, was not in the least aggravated by pressure anywhere. On a full consideration of his condition, however, I had not the least doubt that the pain proceeded from gall-stones, though in the rapid sketch which I sent to Sir Henry Marsh and Mr. Rynd I avoided all expression of opinion, and kept to a bare recital of facts. Dr. Wilkinson, who was called next day in consultation, when I described the case to him, was entirely of the same opinion. Though it was some time since he had taken a meal, yet, from the difficulty of giving him relief on the previous occasion until the stomach had been emptied, I thought time would be lost if the same attempt were made again; I gave him therefore, at once, some hot water, with one of the emetic powders in it. It was always difficult to sicken his stomach, and this had to be repeated twice before it was fully discharged. He threw up a quantity of half digested food, mixed with greenish bile. I then gave him a full dose of tr. opii with tr. hyosciamus and ether, about fifty drops of each. This was repeated three times within two hours, (except the ether, which was only given twice,) but without the smallest beneficial effect. He writhed, twisted and tossed about in the bed; his hands were clenched; his muscles trembled convulsively; he moaned loudly, and said his sufferings were wholly unendurable. He asked if I had nothing further to do for him; that nothing I had done had produced the smallest abatement of them, and that he must get relief somehow. As I knew him to be a person of great firmness, it was distressing to witness such extreme and uncontrollable agony; being unwilling, however, to press the opiates further without more time, and hot applications and frictions not giving the least relief, I proposed to take some blood from his arm, to which he immediately assented.

I was influenced to this course by a few similar cases of very great severity, which I had met with some years ago, and especially by one in a middle-aged woman, in which, after opiates had been pushed to the utmost limits of safety, the strong impression produced on the nervous system by a full bleeding had a very favourable effect in bringing them into action. His pulse was calm, and very substantial at 72. It was even raised in force, perhaps, from the irritation of the pain, and was certainly a pulse in which no one would hesitate to bleed if there seemed a necessity. I therefore took about thirty ounces of blood from his arm, and I took it rapidly from a large orifice, in the hope of inducing deliquium, but no such result followed, nor any abatement of the pain; the pulse rose to 90, and became softer; I then bound up the arm in the usual manner with a large pad and bandage. He asked for some laudanum. I told him I had already given

him a good deal; that it was too soon yet for its full effect to take place; and in order to gain time, got the principal seat of the pain chafed smartly and perseveringly with laudanum. The bleeding took place at half-past eight. After the lapse of half an hour his agony was still excruciating. He assured me it was as bad or rather worse than ever. At length, finding no remission of the symptoms, I repeated the last dose about nine o'clock; some time after this it was evident the pain was abating. His complaints became less loud, and he soon fell into a quiet slumber. It was impossible for me to remain out of town that night, so I requested him to allow his servant to sleep in his room. This he would not, by any means, permit, neither would he allow him to sit in the room, or remain there at all. I then told the servant to come to the door frequently, to keep a close watch on him, and let me know if anything went wrong. I requested Mr. Stafford to keep his arm very quiet in the moderately flexed position which I had placed it in, and to take care not to disturb the pad or bandage. How little these directions were attended to may be gathered from the facts, which I since learned from one of his servants, (not his own man,) that the pad was afterwards found in one part of the room and the bandage in another. I returned to Limerick at a quarter to eleven p.m. according to a note in my diary, so that the time within which these events took place was over three hours and a half, a period much longer than that stated by his servant at the inquest.

At half-past six in the morning a message reached me to say the bandage had loosened, that he had bled profusely, but that the arm being bound up again the bleeding had ceased. I got there about 8 a.m., and having again bound the arm properly, observed with some surprise that there was a heaviness about him, with a constant tendency to sleep and occasional stertor. As it was about eleven hours since the last dose of the medicine had been administered I took it for granted its principal effect had taken place during the night, and that this was only some remaining trace of it. In less than an hour, however, it had evidently increased, and I then began to be much alarmed, not knowing what point it might, reach before the time when such effects pass away. The result was, that, after giving him coffee, brandy, ammonia, and other stimulants, until he could no longer swallow, and walking him about as long as it was possible, the symptoms increased, so that nothing kept him out of the deepest sleep but the most vigorous slapping on the soles of the feet with flat thin sticks of soft pine. Dr. Wilkinson was sent for at my suggestion at ten o'clock, and arrived at twelve. On explaining the case to him, and the different and unexpected course things had taken on this from the former occasion, he came into the room, examined the patient, agreed in the necessity of continuing the slapping, and remained some hours to see it carried into effect. Mr. Stafford's own men assisted me, and this painful process lasted from half-past eight in the morning until half-past six in the afternoon, being a considerable part of the time so severe as to make us apprehend serious injury to the feet, though there seemed no alternative, the same application being tried on his hands and other parts, but to no purpose. At one time the respirations fell to about six in the minute—the pulse 140, almost imperceptible—the limbs cold, and the breathing, even at these long intervals, barely sufficient to make the elevation of the chest visible. Notwithstanding an amount of severe slapping on the feet, that made such a remedy in such circumstances appear quite cruel and unfeeling, the symptoms increased hourly until 5 p.m., when they reached their utmost severity. At a quarter to six there was some mitigation, and between that and 7 p.m. they wore off so rapidly that, at the last-named hour, all immediate danger was over. He was placed in bed, and slept at intervals during the night, but was easily roused, and very nervous and irritable. Notwithstanding all that had passed, he utterly refused to allow either me or his servant to remain in the room during the night; I however stayed in the house, and occupied an apartmest not far from his.

The next day (Friday) he was pretty well; his pulse substantial at 90. He had slept in the night, but not deeply; was very nervous and irritable, and had but little appetite. He wanted to get up, and come down stairs, but this I would not at all allow. The suppression of urine I have before spoken of returned. There was no more than about two ounces in twenty-four hours, and this was deeply coloured with blood; for this dry cupping was made use of on the loins, and repeated three times a-day. The effect of this was to restore the urine to its natural colour, but its quantity was not increased. I hoped, however, that a purgative would bring about the action of the kidneys. I had left five grains of calomel and some compound senna mixture, to be taken the morning before, which on my arrival, seeing his exhausted condition from the accidental bleeding, I was glad had not been given. Two aperient pills, followed in three hours by a glass of black draught, were now administered, which, with the assistance of an enema, produced two or three copious healthy-looking discharges, but without the result desired. I tried to induce him to take some diuretic medicines in draughts twice a-day, but as his stomach felt uncomfortable I could not prevail on him to continue them. I applied water dressings to his feet, but he did not persevere in the use of them, nor could he be got to consider their condition of any importance. He came down stairs next day (Saturday) much against my will, but he would have it so. He sat on the sofa in the drawing-room, saw such of his friends as came to inquire for him, looked over the papers, and though his appetite was not good, he ate some wild fowl each day for dinner; and at Cruise's Hotel, on his way to Dublin, ate as heartily as could be desired. I foresaw, however, that this state of the secretion of the kidneys, which continued unaltered, would soon begin to tell upon him; and I attribute to that, and the journey to Dublin (a journey undertaken on his own unalterable determination), the state of extreme prostration in which Sir Henry Marsh found him, and which went on daily increasing to the time of his death. Mr. Stafford left Limerick on Wednesday, and died in Dublin on the Sunday evening following, that is, ten days after the narcotism had passed away, and eleven after the bleeding. From the minute reports of the post-mortem examination handed in at the inquest (and which will be found at page 554 of the present volume of the *Medical Times and Gazette*), from the state of the heart itself, and the rapid decomposition of the tissues, the great extent to which that formidable disease, fatty degeneration, had proceeded, will be evident.

I confess, if it had not been for this examination, Mr. Stafford's case would have remained a perfect mystery to me. I could not understand why, with suffering so intense and extreme as he exhibited for two hours and a half or more, the quantity of laudanum given should produce narcotism; still less, that narcotism in a dangerous form should only have arisen eleven hours after the last dose, and that its point of highest severity should have been at an interval of twenty hours. Neither could I understand why loss of blood, which is such a powerful antidote against, or rather preventive of the narcotism of opium, as all accoucheurs well know, should in this instance, especially the secondary accidental bleeding, appear to have been the actual cause of its occurrence, and that, as I have said, after the ordinary period for its appearance had long passed. This principle, that hæmorrhage has a strong tendency to prevent the narcotism of opium, is so fully recognised, that bleeding has been warmly recommended on very high authority, as a remedy for the narcotism of opium, and practised in some dangerous cases with great success. Professor Thomson, in his Lectures on Medical Jurisprudence, delivered at University College, and published in the *Lancet* of August the 26th, 1837, mentions three instances in which this remedy was used; one of which is detailed at length. If it were not for this examination, therefore, Mr. Stafford's case would have remained unexplained, and would have stood out as a solitary exception to a rule which my own experience of many years, as well as that of the Profession generally, had led me to think was universal. Now, when once a post-mortem examination has revealed the existence of fatty degeneration of the heart, it becomes easy to explain anomalies and form an opinion of the effects of treatment; but to discuss a case fairly, it should be taken in all its circumstances, just as it stood at the time. If every man standing at the bedside of a patient could have his reasoning on the case illuminated by the light of a post-mortem examination, I believe there are numbers of cases in which treatment would be very seriously modified. Judged in this way as to the facts it presented at the time, in Mr. Stafford's case there certainly was no reason to suspect the existence of so formidable a disease as fatty degeneration of the heart. Upon this question everything turns, for it is evident that with such excessive pain the quantity of anodynes

given, though large, would have been well borne, and it is impossible a loss of thirty ounces of blood could have produced any serious or permanent impression on a man generally enjoying good health. Mr. Stafford, though not a robust man, was far from showing any delicacy of appearance. He was active and wiry; had a capacious chest, a well-developed muscular system, and took an immensity of active exercise. He never complained of his heart, never had the least consciousness of its weakness, as all his friends know; had no idea of its being diseased, and, as far as I could learn, never consulted any one on its condition. He looked healthy, and was reputed generally to enjoy good health. The night I was called to him there was no change in his aspect or look except what proceeded from excessive pain; his pulse was strong and firm, and quite healthy in character. In the excessive agony he was in, an examination for fatty degeneration of the heart would have been a discreditable piece of show, or a gross absurdity. Now I ask, in the perplexing circumstances of this distressing case, when laudanum in large doses failed to give relief, and bleeding suggested itself, was one to go the whole round of the nosological list, single out a disease of rare occurrence, and assume it to be present without having any ground whatever for such an opinion?

Again, if bleeding be thought on the whole unsuitable to the circumstances of the case, I would ask those who think so, would they have had the least hesitation in using chloroform? and is it not certain that if chloroform had been given according to the necessities of such a violent case, such a heart as Mr. Stafford's would never beat again? It does not do to say that it might be used cautiously, because in such a case it should be pressed to the state of general anæsthesia; and sosure as it was pressed to this point, so sure am I, that a heart in such an extreme state of disease as Mr. Stafford's would never recover its action. It has been used with caution—with the greatest caution—and under the hands of some of the cleverest men in public Hospitals in England, and it is precisely among these cases of fatty heart that fatal results from chloroform have generally occurred in their hands, even with all the caution and care that could be employed. Does it not seem unreasonable, therefore, to object to one remedy as prejudicial, and yet urge the use of another, which would be not only prejudicial but immediately and highly dangerous?

As to the quantity of laudanum given, whether considered relatively to the intensity of the patient's sufferings, or to its absolute amount, I believe it may be safely asserted, that it was not more than is often given in similar cases of equal severity, and not by any means as much as is occasionally given in some of them; and that in absolute quantity it was far less than is sometimes administered in delirium tremens, in insanity, and in several painful diseases where its sedative influence is greatly needed. Since the inquiry into the circumstances of Mr. Stafford's illness and death, I have received numbers of communications from Medical men, who all mention instances occurring either in their own persons or in others that entirely bear me out in these assertions. Most of them, being strangers to me, have given their names, and I suppose would have no objection to their being published, but it does not seem necessary. One of these gentlemen, living in Liverpool, says, "I am a living instance of the almost unlimited extent to which narcotics may be given during acute suffering. About ten years ago I was suffering from sudden and acute pain at the epigastrium, when I was attended by two able members of our Profession in this town, who considered I was passing gall-stones. They kindly remained with me several hours, during which time they considered me in great danger. I fully recollect, and have very often spoken of it, that on that occasion I took sixty drops of laudanum every half-hour, and that I took eight doses. After this a little solid opium was given to me, how much I cannot say, but I think no more than two or three grains. I took four hundred and eighty drops of laudanum in four hours, which ultimately lulled me, but produced very little sleep. I have great reason to thank God for so great a blessing, as without it, and to that extent, I do not think I could have lived." Another Medical man, writing from the county of Wicklow, states, that in the same circumstances he took half an ounce of laudanum, in four doses of one drachm each, and then a grain of solid opium every hour, until he had taken nine grains, the whole being equivalent to four hundred and sixty-five drops of laudanum within twelve hours, after which he never suffered the least from somnolency. The same gentleman says that, in a previous attack, an eminent Surgeon in Dublin administered morphia in grain-doses to him, and continued it until eight grains were taken, and without any injurious result. In this last instance, as the solution of muriate of morphia of the Dublin College contains 4½ grains to the ounce, and is intended to be equal in strength to laudanum, eight grains of morphia would represent about 850 drops of laudanum.

I regret I have not by me an interesting paper published by Dr. Corrigan in the *Dublin Medical Journal* for November, 1838, on the treatment of acute rheumatism by opium. In that paper, I believe, it appears that quantities of opium, equivalent to 400 drops of laudanum, were given in twenty-four hours, and continued for several days, with no other effect than the relief of pain. In Dr. Aldridge's case, a quantity equivalent to 5000 drops of laudanum was administered within a fortnight, or above 350 drops a-day, and that in a case in which there had been previously a tendency to derangement of the cerebral functions in all previous febrile affections. Dr. Stokes, after referring to the well-known principle that violent pain offers a resistance to narcotism, mentions that he has given, in a case of perforation of the intestine, a grain of solid opium every hour without any narcotism being produced. In one case, he thinks twenty-four grains were given in the twenty-four hours. This would be equivalent to about 600 drops of laudanum. In a case of colic from abdominal aneurism, described by Dr. Beatty in the 5th vol. of the Dublin Hospital Reports, the usual sedative given was from 100 to 150 drops of black drop, which would be equivalent to from 2 to 300 drops of laudanum. Every one is familiar with the immense resistance there is to the narcotism of opium in cases of delirium tremens, and the very large doses that are often given with the utmost safety. It is unnecessary to quote them, though I have many. In the treatment of insanity by opium, an account of which has been published in the *Psychologieal Journal*, and I believe in the *Medical Times and Gazette*, though I am unable to refer to the numbers, I am informed, on high authority, that as much as 20 grains of powdered opium has been given for a dose, a quantity equal to about 500 drops.

56, George-street, Limerick.

THE LONDON
PRACTICE OF MEDICINE AND SURGERY.

ROYAL LONDON OPHTHALMIC HOSPITAL, MOORFIELDS.

REPORT OF THE OPERATIONS PERFORMED FROM OCTOBER 25TH TO NOV. 25TH, 1857.

(Communicated by Dr. C. BADER, Curator.)

1. Lachrymal Apparatus.

Application of the actual cautery to the lachrymal sac in three cases. In one of these there was a fistulous opening at one inch distance from the sac beneath the skin, which was laid open before cauterisation.

One case of tinea with ectropium brought to the operating room was treated by slitting open both lower lachrymal ducts, cutting off the eyelashes, and the application of the nitrate of silver to the edge of the lids.

Removal of a small sebaceous tumour from near the lachrymal sac. It had appeared whilst the case was being treated for an affection of the lachrymal sac, and closely resembled an infiltration of the skin, but that it was possible to squeeze out some of the sebaceous contents.

2. Eyelids.

Seven operations for entropium of the upper, and two of the lower, lid; in the latter cases an oval piece of skin and muscular tissue, its long axis parallel to the edge of the lid, was removed, and sutures employed. Of those of the upper lid two were treated by the skin incision close to and parallel with the palpebral edge, and groove the fibro-cartilage to the same extent. In the seventh case the usual operation of removing the palpebral edge, as far as the eyelashes are concerned, was resorted to.

Three cases of ectropium of the lower lid. In one, caused by a flabby granular state of the conjunctiva, an oval piece was removed out of the latter; in the second case a triangular piece, its base towards the palpebral edge, was removed out of the whole thickness of the lid; in the third, which was consequent on necrosis of the malar bone, the skin was made movable by a V incision, the flap brought up, and the wound below it united by sutures and insect-pins.

In one case of lime-burn, followed by fleshy bands stretching from the inner surface of the lids to the ocular conjunctiva, a probe was carried beneath these bands; and they were then divided, the conjunctiva being afterwards kept separate by introducing a glass mask with an aperture in the centre, which sits well off from the transparent cornea.

3. Muscles of the Eyeball.

Twenty-five operations for internal strabismus, by the subconjunctival division of the muscles.

One case of external strabismus (patient of Mr. Poland's) was operated on by the old method; the muscular insertion being as far back as midway between the corneal edge and optic nerve.

Mr. Bowman, in the case of a lad, divided the external and internal rectus in either eye, with the view of obviating the continual oscillations of the globe consequent on a congenital defect of the retina. Under chloroform the oscillation ceased, but returned some time afterwards, and then the old operation (division of the conjunctiva and muscle) was performed on the external rectus.

4. Cornea.

One case of staphyloma, replacing the cornea which had been lost during purulent ophthalmia, was treated by continued pressure, after allowing some of the distending fluid to escape through a puncture made through the thinnest part of the staphyloma.

In a case of extreme conical cornea of both eyes, with slight opacity of the lenses, Mr. Critchett operated first on the left eye, by breaking up the lenticular substance with the needle; a week later the swollen lenticular substance was removed in great part with the scoop, leaving the capsule with some opaque lens matter on it; afterwards by a third operation, this capsule was torn across. These successive operations were accompanied by very little irritation.

5. Iris.

Two cases of detachment of iris adhesions by blunt instruments, in the one with the hook, in the other with the spatula; in both the cornea was previously opened with the broad needle. In the one, where the adhesion existed between cornea and iris, some bleeding into the anterior chamber ensued. A useful pupil was restored.

Five cases of excision of from one-third to one-fourth of the whole iris, for the treatment of glaucoma. The iris was drawn out through an incision, either made in the part of the sclerotic nearest the cornea, or in the corneal edge. The whole of the drawn-out iris was cut off, or part of it left in the wound. The operation appears not so successful when less than one-third of the iris is removed, and offers, optically, the most advantages when applied to the portion of the iris nearest the upper lid.

Formation of an artificial pupil in six cases; of which three were for opacities of the cornea, one for adhesions of the pupillary edge to the capsule (after extraction), and two for adhesions of the same to an exudation thrown out in the pupillary area. For the three cases the broad needle, blunt hook, and iris scissors, were used, and the drawn-out piece of iris snipped off. In the one the pupil was re-established by introducing the broad needle through the adherent capsule, and partly cutting and partly tearing the iris, so as to form an oblong pupil towards the corneal incision. In the last two the iris, drawn out with the blunt hook, was left in the corneal incision.

6. Lens.

Three cases of congenital cataract. The lenses were well broken up with one needle. Eight cases of hard cataract removed by an upper corneal section. In one case the iris was slightly wounded, in another case a piece of the whole thickness of the iris was excised, while completing the corneal section. The pupil and this opening were united in one, to prevent the vitreous humour from escaping through the iris-wound; the greater part of the lens was then removed with the sharp hook.

Four cases of traumatic cataract treated by opening the cornea with the needle, and removing the membranous remains of the lens with the canula forceps. In two cases the portion seized broke off, and was extracted while the remaining upper half retracted behind the pupil, leaving its area clear. In a third case (of Mr. Hutchinson's) the whole was withdrawn with the canula forceps as a round disc. In the fourth case, after having scooped out most of the soft lens matter, the membranous part was left adherent to the posterior surface of the iris. Repeated attempts with the canula forceps proved that the adhesions would not give way.

One case of soft cataract (in a man of 45), treated by breaking up the lens with the needle, and two cases in which the soft lenticular matter broken up with two needles was scooped out through a small corneal opening ("Linear extraction.")

Eight cases in which, after extraction, the remaining opaque lenticular matter, or the product of some irritation, caused the opaque appearance of the capsule known as "false membrane." They were treated by opening this membrane; in three cases with one, in five with two needles.

In two other cases the false membrane was adherent to the posterior surface of the iris. After opening the cornea with the broad needle, the greater part of the adhesions, being detached with the spatula, retracted from the pupillary area.

In one case there was recent inflammation of the conjunctiva, with sequelæ of iritis (occluded pupil and yellowish aqueous). With the broad needle passed through the cornea the false membrane in the pupil was opened, and the latter was then withdrawn with the canula forceps. After the escape of the aqueous, some blood oozed out from the surface of the iris.

In one case in which injury was followed by a central opacity of the cornea, with adhesions of the capsule to it, and the opaque capsule stretching forwards through the pupil had also portions of iris adherent to it, Mr. Streatfield first divided the corneal adhesion with the broad needle, then with the canula forceps withdrew the capsule by separately detaching the points of adhesion of the iris with a needle introduced at the opposite edge of the cornea, and, by a subsequent operation, made an artificial pupil downwards and inwards. Vision was, from mere perception of light, improved to a knowledge of objects.

7. Excision of the Globe.

This operation has been performed in five cases: three were for staphylomatous enlargement after purulent ophthalmia, and two for what is called chronic glaucoma. In none of the cases perception of light existed. In the glaucomatous cases a piece of iris was excised from the opposite eye. The pathological change in the two excised globes consisted in a peculiar disease in or upon (?) the nerve-cell layer of the retina, accompanied by increased vascularity, and by the effects of pressure, atrophy of the optic nerve fibres, retarded ciliary, and retinal circulation, opacity of the lens, etc.

Total of major operations . . . 89.

THE LONDON HOSPITAL.

The particulars of the following very unusual case are from the notes of Mr. Chatterton, Mr. Adams' dresser at the time:—

RUPTURE OF THE INTERNAL LATERAL LIGAMENT OF THE KNEE-JOINT, WITH DISPLACEMENT OF THE SEMILUNAR CARTILAGE.

(Case under the care of Mr. ADAMS)

William Forrester, aged 32 years, a robust, healthy man was admitted into Mellish Ward, under the care of Mr Adams, August 25.

The patient is a breaksman on the Eastern Counties Railway, and while attending to his duties on the line a truck, laden with deals of considerable size and weight (about two cwt. each piece) started on, and as it passed him the deals became precipitated from the truck, some striking the patient on the right shoulder, but the bulk falling on the inner part of the left knee. At the time of the accident he was in a stooping position, the left leg being slightly advanced from the right. The pain was excessive for a short time, and, according to his description there must have been considerably more deformity than when admitted. When admitted the leg was noticed to be considerably diverted from the mesian line.

There was a "puckering in" of the skin around the inner condyle, so that its outline was plainly discernible, together with that of the head of the tibia. On examining the limb it was found to be very moveable, and could be abducted considerably more than natural, leaving an interval between the extremity of the femur and the head of the tibia of about three-quarters of an inch. The man was placed in bed, and extension made on the limb, with the view of treating it with the long splint; it was found, however, that the puckering of the skin was considerably increased, and that it became nipped between the femur and tibia, and it was, therefore, thought advisable to allow it to remain in the semiflexed position, particularly as there was less traction on the integument in that way. Previous attempts by forcible and sudden flexion had been made to reduce the displaced cartilage, but without result. Effusion had already commenced. A spirit lotion was applied, and a pillow placed under the knee. Pulse quiet. Ordered milk, beef-tea.

August 26.—Has slept tolerably well, and does not appear to suffer much from the accident. Pulse quiet, 64. Very slight pain in the knee, although a good deal of effusion. No unfavourable symptoms after.

September 6.—The long splint was applied, and some slight extension made. The leg appears to be getting pretty strong, and the retraction of the skin much less. Ultimately the man recovered very useful movement of the knee. The indentation of the skin in front of the joint, which had constituted so peculiar a symptom throughout, still remained in slight degree when he was last seen.

HOSPITAL NOTES.

THE IMPORTANT POINT IN THE AFTER-MANAGEMENT OF EXCISIONS OF THE KNEE-JOINT.

We wish to draw especial attention, as we have indeed already repeatedly done, to the exceeding importance in the after-treatment of these resections, of keeping the limb in entire rest for a long period. As soon as all bleeding has ceased the limb should be dressed and carefully secured in a straight position on a back splint with movable sides. It may then be swung in the manner now so generally employed. In padding and fitting the back splint in the first instance, in securing also that there is no hurtful pressure on the heel or on either malleolus, the utmost care should be exercised, for this part of the apparatus ought not to be removed until consolidation has has taken place. As the side splints are movable, no difficulty will be met with in dressing the wound, and the pads, etc., should be secured from soiling by oil-silk. Among the causes of failure after this operation, no single one can, we feel sure, claim so many limbs as the too early change of splints. The over anxiety of the operator in, it may be, his first case, to ascertain that all was doing well, to know whether consolidation had commenced, etc., has, in not a few instances, been the very means of defeating his wishes. It is not "meddlesome midwifery" only which is "bad." Repeatedly has it happened that all was doing excellently well, the limb perfectly straight, etc., up to, it may be, the sixth, tenth, or fourteenth day, the day of the first complete dressing; that then the bones got displaced, and could never after be restored to position. If an operator be conscious of any moral infirmity in this direction he ought at least to take the precaution of dividing the hamstring tendons, but even then his cases must not be expected to do as well as those of surgeons who have a large stock and patience.

TREATMENT OF TINEA TARSI.

A very useful ointment in this troublesome affection is one which is in use at the Hospital for Skin Diseases, and consists of a combination of a mercurial with lead. Its formula (somewhat complex it must be confessed), is as follows:—

Acetate of lead, oxide of zinc, nitrate of mercury ointment, of each a drachm; calomel half a drachm, diluted by six drachms of lard, and five of palm oil.

It is of great importance to be particular in directing the mother of the child to wash off every particle of crust before applying the ointment. The application should be made night and morning.

EXCISION OF THE KNEE-JOINT FOR DISLOCATION, Etc.

On Saturday last Mr. Fergusson performed excision of the knee-joint under somewhat peculiar circumstances. The patient, a young man, had suffered from necrosis of the femur extending into the joint for some years, and a few weeks ago Mr. Fergusson removed numerous fragments of loose bone from the back part of the shaft, just above the condyles. This operation was followed by a subsidence of active disease in the articulation, but the tibia being completely dislocated backwards there was no probability of the limb ever becoming useful. Under these circumstances the excision was performed. The portion of the femur cut away was of unusual length, owing to the necessity for shortening the bone sufficiently to allow of reduction. The saw having, however, cut through two small circumscribed abscesses, a second slice was subsequently taken away. The surface of the tibia was also freely sawn away. Still, however, owing to the density of the contracted tissues at the back of the joint, reduction was not effected without much difficulty. The limb having been got into a straight position, was secured in the usual manner upon a back splint.

AMPUTATION AT THE KNEE-JOINT.

This operation was performed lately at the Radcliffe Infirmary, Oxford, by Mr. Hussey, upon a lad aged 17, suffering under necrosis of the tibia, with immense hypertrophy of the integument and soft parts. The operation was done with the scalpel; the condyles of the femur were not touched; the articular and semilunar cartilages were healthy. The amputated limb weighed 11¼ lbs. The last ligatures (those on the saphena and popliteal veins) separated on the thirteenth day, and the patient is rapidly regaining health.

GUN-SHOT WOUND OF THE CHEST.

The policeman Thain, who was shot in the chest by a prisoner he had apprehended, and with the particulars of whose tase some of our readers may have been made acquainted by he newspapers, died on Saturday last. The affair had occurred on board a packet coming up the Thames, and on landing the poor fellow was taken at once to Guy's Hospital, where he was admitted under the care of Mr. Cock. At first his condition was not alarming. The charge, two small bullets, had entered the right chest, close to the seventh rib, and had remained there. No profuse bleeding had occurred externally, but from the extensive dulness soon afterwards found in the chest, it was feared that the lung had been wounded, and that blood had accumulated in the pleura. The man, who was attended by Dr. Addison in consultation with Mr. Cock, was doing as well as could be expected during the first week. Afterwards, however, he sank into a state of irritative fever. There was discharge of sero-purulent fluid from the wound, and also occasional escape of gas and the signs of pneumo thorax with fluid accumulation became marked. Some cloth which had plugged the wound was removed on the eighth day. He sank at length from exhaustion, and not from any mechanical compression of the thoracic viscera. Death took place on the thirteenth day. At the autopsy one bullet was found in the substance of the diaphragm, and the other encapsuled by lymph on its surface. The right pleura was full of fluid of sero-purulent character, and of fetid gas. The lung was compressed, but no wound could be distinguished on careful search on its surface. The origin of the pneumo thorax was differently explained by different observers; some thinking that the lung must have been wounded in the first instance, and had healed, and others that the air had entered by the wound from without.

French Statue to Jenner at Boulogne.—The Municipal Council of Boulogne having authorized the erection of this statue, the subscription has been actively commenced. The following eminent persons have consented to form an Honorary Committee: MM. Duméril, Serres, E. Barthez, Bégin, Bérard, P. Boyer, J. Cloquet, Danyau, Davenne (Director of Public Charities), P. Dubois, Geoffrey St. Hilaire, Jobert, Louis, and Nélaton. It is intended that the inauguration shall take place early in June next.

THE PROVINCIAL
PRACTICE OF MEDICINE AND SURGERY.

REPORT ON THE TREATMENT OF PROLAPSUS UTERI.

(Continued from page 579.)

LEEDS GENERAL INFIRMARY.

PLASTIC OPERATIONS FOR PROLAPSUS UTERI.

(Under the care of Mr. THOMAS P. TEALE.)

We have been favoured by Mr. Teale with the particulars of the interesting cases given below. They are especially valuable because in each instance the report extends to a considerable period after the operation. With the exception of one case of perineal laceration without prolapse, operated on successfully by Mr. Smith, these include, we believe, all the cases of this class submitted to operation in the Leeds Infirmary. Should any cases of this kind have been treated in other Provincial Hospitals, we shall have pleasure in giving them insertion as part of the present series, if their details are furnished to us.

Case 1.—February, 1856.—Bridget Casey was admitted into the Leeds Infirmary on account of prolapsus uteri. The womb formed a protruding mass, the size of an apple, extending below the vulva, whenever the patient had to stand or walk for any considerable time. The distress and weakness caused by this complaint led her to come to the hospital for relief. She was the mother of two children, her last delivery having occurred three years ago. The perinæum was torn as far as the sphincter ani. Immediately after her recovery, on attempting to move about, the protrusion occurred.

February 2.—Mr. Teale performed a plastic operation for making a new perinæum from the sphincter ani to a line level with the meatus urinarius. The parts were kept in contact by quill sutures.

She left the hospital a month after the operation.

September 8, 1857.—She has found great relief, and has not had any return of the protrusion.

Case 2.—February 25, 1856.—Mary Ann Hodgkinson, aged 30, the mother of two children, became affected with protrusion of the womb after a tedious but natural labour, three years ago. She has since had three miscarriages, and the protrusion has been gradually increasing, until it has attained the size of two fists.

March 1.—Mr. Teale pared the edges of the portion of the vulva from the fourchette to a level with the meatus urinarius, and then united the raw surfaces by two quill sutures and four interrupted sutures. There was considerable oozing of blood from small vessels. The torsion forceps was used, and a cold wet cloth was applied. An opiate was given. The opiate was ordered to be repeated every night, and the bladder to be relieved by the catheter whenever it was necessary.

4th.—There was some discharge of blood from the wound during the first two days, but otherwise the patient has been doing well. The quilled sutures were taken out to-day. The union appears complete.

6th.—Yesterday and to-day there has been a feverish condition, attended with foul tongue, thirst, and pulse 110. Bowels still confined. Free discharge of mucus from the vagina. The interrupted sutures taken out to-day. Adhesion good. Effervescing saline ordered, and injection of the vagina with tepid water three times a day.

11th.—Firm and complete union has been effected with the exception of a small portion at the upper part. To have an enema of olive oil to relieve the bowels, which have not acted since the operation. The use of the catheter to be discontinued.

September 22, 1857.—Seven months after the operation she became pregnant, having been perfectly relieved of the protrusion. She continued free from the complaint throughout her pregnancy, and was delivered on the 12th of May, 1857, when laceration of the perinæum again occurred to a considerable extent. On her recovery it was found that the protrusion returned to about half its former size. It produces much less inconvenience than formerly, and is easily retained by a perineal bandage, which was quite ineffectual before.

Case 3.—July, 1857.—Sarah Dakin, aged 27, admitted into the hospital for prolapsus uteri. When delivered of her first and only child two years ago, she had laceration of the perinæum as far as the sphincter ani. Soon after her recovery from the confinement, when she began to go about, the womb protruded externally, and has continued to do so until the present time. As soon as she rises from her bed the protrusion takes place as large as her fist, extending six or seven inches below the vulva.

July 2.—The plastic operation performed.

30th.—Firm union has taken place, and she is to leave the hospital to-day.

December 3.—She is perfectly relieved, and is quite free from protrusion. She attends to her domestic duties as comfortably as before the laceration.

The following case we may append, although not strictly a Hospital Report, as it occurred in private practice. It was operated on by Mr. T. P. Teale, jun.:—

July, 1857.—Mary Buckle, aged 24, a housemaid, unmarried, has never had a child. Was quite well till four years ago, when, after cessation of menstruation for five months, on the return of the menses, she began to suffer from "bearing down." For three years the womb has protruded externally, causing great distress, and rendering her almost unable to follow her employment. The womb generally returned spontaneously within the vulva when she laid down, but sometimes required to be pushed back. There was a slight discharge, and she could not walk far.

July 4.—The margins of the posterior portion of the vulva were pared, as far forward as the level of the meatus urinarius, and brought together by the quill suture. The urine to be drawn off by catheter three times a-day.

8th.—Sutures removed.

9th.—Catamenia commenced. Slight fever.

18th.—She returned home, the main part of the raw surface being united, a fistulous opening remaining near the fourchette.

August 3.—There is a firm cicatrix, with a small fistulous opening into the vagina at the posterior extremity.

September 1.—The fistulous opening has closed. She has been able to go about without distress. When she stands there is a slight protrusion of the cervix uteri, but not to such a degree as to cause inconvenience.

NOTES AND QUERIES.

He that questioneth much shall learn much.—*Bacon.*

No. 223.—WUTZER'S OPERATION FOR THE RADICAL CURE OF REDUCIBLE INGUINAL HERNIA.

I shall be much obliged to any British Surgeon who has performed this operation if he will favour me with a short note of his cases, giving the age and sex of the patient, the variety, size, and duration of the hernia, the date of the operation, with its immediate effects, and the ultimate result.

T. SPENCER WELLS.

3, Upper Grosvenor-street, Dec. 9, 1857.

No. 224.—COMPOSITION OF SECRET REMEDIES.

Is the secret of the "black drop" lost by the death of Brathwaite of Kendal? What is the composition of the Eau de Ruspini?

AN OLD SUBSCRIBER.

Pau, South of France, Nov. 27, 1857.

ANSWER.

To No. 222.—DEPILATORIES.

Mr. Lemoine will find a formula by a countryman of his, and which is said to be highly efficacious, in the *Pharmaceutical Journal* for September, 1857. Mr. Redwood, however, recommends a strong solution of barium, with sufficient powdered starch to form a paste: to be left on for a few minutes, then scraped off with the back part of a knife.

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Medical Times & Gazette.

SATURDAY, DECEMBER 12.

THE GREAT LAMBETH MATRICIDE.

Year after year it becomes our duty to record events proving over and over again the importance of giving to the Medical officers of our Hospitals full power over the internal arrangements of these institutions, and demonstrating the danger of subjecting any of the regulations which affect the sanitary condition of the inmates to the control of a Lay Committee. But we never remember so glaring an example of the necessity of maintaining intelligent Medical authority and checking ignorant Lay interference, as that afforded by a comparison of the mortality in the General Lying-in Hospital during certain given periods of Medical power and Lay usurpation.

The circumstances of the case are these. Dr. Rigby, lately the Senior Physician, in consequence of the dreadful mortality arising from repeated outbreaks of puerperal fever, induced the Committee to adopt Dr. Reid's system of ventilation. For seven years the new system was worked, and the mortality, which had ranged from seventy-six to ninety per thousand, fell to less than five per thousand. Disregarding these facts, the Committee determined to recur to the old system, and the mortality rose again to twenty-five per thousand. The following table shows how the mortality varied from year to year:—

Statistics of the Mortality of Women in Childbed at the General Lying-in Hospital, from 1837 *to* 1856, *from the Register Book of the Head Midwife.*

Year.	Delivered.	Died.		Average of deaths per 1000 deliveries.
1837	197	3	1837 to 1841 802 women were delivered, of whom 61 died. April, 1842, to April, 1843, 209 women delivered, 19 died	From Jan. 1, 1837, to the closing the Hospital, August, 1841 . 76·05
1838	76	20		
1839	197	7		
1840	213	15	Hospital closed August, 1841.	
1841	119	16	Hospital re-opened April, 1842, with Dr. Reid's ventilation, but the valves kept shut until April, 1843. The ten deaths were in the first three months.	From April, 1842, to April, 1843, while the valves were closed .. 90·90
1842	154	9		
1843	193	10		From April, 1843, when the ventilation was first properly worked, to April, 1850, when it was stopped ..... 4·81
1844	179	..		
1845	187	1	This was rupture of the uterus	
1846	221	..	April, 1843, to April, 1850, 1661 women delivered, 8 died.	
1847	274	2		
1848	320	1		
1849	278	4		
1850	221	..	Ventilation discontinued April, 1850. April, 1850, to May, 1855, 1158 women delivered, 30 died. Ventilation renewed May, 1855. Of these deaths 10 were from puerperal fever.	From April, 1850 (inclusive), when the ventilation was stopped, to May, 1855, when it was renewed 25·90
1851	192	7		
1852	216	3		
1853	234	7		
1854	272	10		
1855	291	14		
1856	300	7		

Dr. Rigby having remonstrated in vain, Dr. Odling, the Medical Officer of Health for Lambeth, then tried to bring the Committee to reason; but so far from that, the Committee actually passed a vote of censure upon Dr. Rigby, who then resigned his office of Senior Physician to the Charity. His letter to Lord Galloway, the President of the Hospital, explains so fully the facts of the case, that we publish it entire.

"My Lord,—In resigning the office of Physician at the General Lying-in Hospital, which I have held for more than 20 years, I deem it only just to myself to offer to your Lordship an explanation of my reasons for taking this step.

On several occasions I have felt it necessary to differ from the Committee on the subject of Dr. Reid's ventilation, which was established in 1842; which has produced the most favourable effects on the sanitary condition of the Hospital, and which, without any just reason, has been discontinued.

A short statistical summary of the mortality at the General Lying-in Hospital, without and with this plan of ventilation, will best explain my position; and I may also add, that the accuracy of the subjoined numbers is beyond cavil, having had them corrected and verified by an experienced calculator.

	Deaths.	Deliveries.
From Jan. 1837 to Aug. 1841 (when the Hospital was closed for the purpose of establishing Dr. Reid's system of ventilation), the mortality of women in child-bed was no less than	76·05	per 1000
The Hospital was re-opened in April 1842, but by the determined opposition of the present matron, and nurses under her, the new ventilation was rendered worse than useless, the valves were regularly closed the moment my back was turned, and from April 1842 to March 1843 (inclusive) nineteen women died, or, at the rate of	90·90	per 1000
The following April (1843) two of my own pupils at St. Bartholomew's became House Surgeons, and resolutely carried the ventilation into full activity. The mortality ceased instantly, and for a period of seven years the success as regards the health of the patients and their children was most extraordinary, only eight patients having died, and one of those was from accident, or at the rate of	4·81	per 1000
—the greatest amount of success which has ever occurred at any Lying-in Hospital, whether in this country or on the continent, and yet other circumstances were not peculiarly favourable during these years. The Hospital was much fuller than it had ever been before, and this period was not remarkable for the general healthiness of London.		
In April 1850 the Committee determined to discontinue the ventilation; and from this time to May 1855, thirty women died in childbed, or at the rate of	26·77	per 1000

I then succeeded, after violent opposition, in obtaining permission to have the ventilation renewed, and hoped that the experience of former years would have allayed every prejudice on the subject.

In Feb. 1857, Mr. Grisell, who had been one of the most active of the Committee in stopping the ventilation in April 1850, undeterred by the frightful mortality before it was established, and uninfluenced by the extraordinary success during its seven years of activity—neither warned by the fatal results which had followed its discontinuance for five years—ordered a large hole to be made into the fire-shaft, by which its action on the air of the Hospital was effectually cut off; and this he did without having such a measure moved or seconded, or put to the Committee in the regular way, and in spite of the disapproval of the Senior Physician (myself) who was standing by. Puerperal fever again appeared towards the end of the summer, and feeling that it was useless to make any further appeal to the Committee, I considered it my duty to apply to Dr. Odling, the officer of health for Lambeth, who, on inspecting the Hospital and reporting its state to the Vestry-board, was directed to write to the Governors of the General Lying-in Hospital. A special meeting

was immediately summoned, and a vote of censure, moved by Mr. Grisell, was passed upon me for "calling in Dr. Odling." That censure troubles me not. I have done my duty to my poor patients; and if five years without the ventilation show sixty-one deaths, and seven years with it only eight, it may be fairly said, that but for the ventilation, *cæteris paribus*, we should have lost eighty-five women, instead of that magnificent result of only eight; and in the succeeding five years, instead of losing thirty by unwarrantably cutting off the ventilation, we should have lost only five.

This is not a solitary instance of the success of Dr. Reid's ventilation in a Lying-in Hospital. At Copenhagen the mortality from puerperal fever was even worse than at the General Lying-in Hospital; but the new Hospital, which has been built with this system of ventilation, from plans furnished by myself, has shown results as striking and gratifying as in London.

Such overpowering facts establish the certainty that a great number of women will die at the General Lying-in Hospital if this system of ventilation be stopped, and that a most unusual healthiness of the patients, and singularly few deaths, occur when it is in action. The wilful destruction of it, therefore, in the face of such evidence, becomes an act verging so closely into one of a criminal nature, that I will not lend myself directly or indirectly to anything of the sort. And as for the vote of censure which Mr. Grisell proposed and carried against me, it merely amounts to an act of defiance to the ordinary feelings and principles of humanity.

In stating these details to your Lordship, I fulfil the object of my letter. The officers of health possess no powers beyond those of pointing out error, and reasoning where reason exists. The Secretary of State for the Home Department "has no power to interfere." It is therefore my purpose to use this letter to your Lordship as a means of appeal to public opinion, which is ever ready to defend "right against might."

I am, &c. EDWD. RIGBY,

Late Senr. Physician to the Gen. Lying-in Hospital."

The question naturally arises—What possible answer can the Committee make to such a letter as this? Why do they hold with the matron, and turn a deaf ear to Dr. Rigby and his startling statistics? In reply, we may state in general terms that they attribute to the influence of bad drainage, epidemic influences, and the moral effect of illegitimate pregnancy, the mortality which Dr. Rigby shows to be closely related to the ventilation of the Hospital. The Committee have also prepared a statistical report, but we cannot notice it now further than to say that it is remarkable only for its inaccuracy. They have confounded the number of admissions with the number of deliveries. The number of deliveries is added up incorrectly; the number of births is also added up incorrectly, and, with their own sums, the average mortality is calculated incorrectly. Such a document is clearly unworthy of further notice.

No one denies for the moment the importance of good drainage, or the influence of epidemic outbreaks or depressing moral agencies upon parturient women; but the practical point to be borne in mind is that with seven years' ventilation we have a death-rate extraordinarily low, while the change from ventilation to non-ventilation was followed in a few months by a shocking increase of mortality. And here a practical fact of great importance has to be observed: the effect of ventilation or non-ventilation is not evident until some weeks after a change of system. The wards polluted by miasmata remain pestilential for several weeks after the purifying influence of ventilation is brought to bear upon them; and pure wards are not contaminated at once, but must become saturated, as it were, with emanations from the bodies of the sick before the patients begin to suffer. This is fully borne out by the tables of Dr. Rigby, which we may say are quite confirmed as to mathematical accuracy by Dr. Odling, who has made an independent examination of the books of the Hospital.

Let us shortly sum up this case:—

I. Since May, 1855, ventilation has been carried on so irregularly that no definite conclusion can be arrived at.

II. From April, 1842, to April, 1843, there were 219 deliveries, and 19 deaths. The Committee includes this period among the ventilation years, while Dr. Rigby reports that by constant closure of the valves all ventilation was prevented.

Omitting these periods altogether, it appears that

III. From April, 1843, to April, 1850 (seven years), systematic ventilation was efficiently practised. In this period we have 1661 deliveries, and 8 deaths, or a death-rate of 0·481 per cent.

IV. In the eleven years, 1837-41, and 1850-56, systematic ventilation was not practised. In this period we have 1960 deliveries, and 91 deaths, or a death-rate of 4·642 per cent., a rate *nine and a-half times greater* than the mean of the former period.

With these facts weighing on his mind, the only course Dr. Rigby could take was to impress them, if possible, upon the minds of the Hospital Committee. Failing in his efforts, his only course was to resign office, and enter his protest. This he has done. Of the feeling which induces Dr. Cape and Dr. Hutton to retain office under the circumstances we are unwilling to speak until the Profession has received some explanation from these gentlemen.

THE WEEK.

THE number of Medical students in Dublin who have entered for dissections during the present session is 473, showing a slight increase upon the classes of last year. About one hundred may be added for those who are not dissecting but are in attendance upon hospital or lectures, so that the total number of pupils at present in the Medical schools of Dublin is about 573.

A melancholy instance of the danger to which the laborious duties of the Medical Profession occasionally expose the country practitioner is quoted by *Saunders' Newsletter* from the *Tyrone Constitution*—the death of Dr. M'Niece, of Tullyallen, near Dungannon, who was accidentally drowned on his way home on the night of Wednesday, the 26th ult. He had been out on professional business which detained him to a late hour, and coming home had to cross by a foot rail over a large stream, which was greatly swollen by the late rains. It seemed he had missed his footing in crossing, and fell into the water. He was not discovered until the following morning. His loss, adds the local newspaper, will be deeply felt.

An action was brought last week in the Court of Common Pleas in Ireland, by Mr. Willett, a Fellow of the College of Surgeons, against Mr. Smith, of the firm of Hodges and Smith, the eminent booksellers of Dublin, as executor of the late Mr. John Hodges, for the sum of £149, alleged to be due for attendance by the plaintiff as surgeon and apothecary, and for attendance as surgeon upon the servants of the deceased at his request. The claim was for 376 visits, at 10s. 6d. each, amounting to £197 8s. Credit was, however, given for £48, received from Mr. Hodges during his lifetime. Mr. McDonough for the defence contended that the plaintiff had been amply remunerated for his services by Mr. Hodges, who paid for his attendance in certain months £8, £4, £3, and £1. In proportion to the extent of the services was the remuneration, and if a Medical man did not think he was adequately paid, he had the remedy in his own hands, and could discontinue his visits; and the natural inference in the present case was, that there was a

mutual understanding between the late Mr. Hodges and Surgeon Willett, that the latter received these fees in consideration for his services, and that a bill was not afterwards to be trumped up. The defendant had, however, lodged £20 in court, and the jury found a verdict for the plaintiff, £50 in addition to the sum lodged by Mr. Smith. On the application of Mr. O'Hagan, Q.C., the Chief Justice certified that it was a case for a special jury. It is really surprising that a member of any respectable firm should have resisted payment of so very reasonable a charge; for it should be stated that the visit and the introduction of the catheter was only charged half-a-guinea. In this case the resistance was particularly inexcusable, as Mr. Smith had been long connected with the Profession as Medical publisher, and ought to have known better.

In another column will be found an account of a new method of making bread, which promises to prove of national importance; for if the whole of the bread in the kingdom were so made, it is estimated that a saving would be effected equal in amount to our entire importation of foreign wheat. A great saving in point of time would also follow, and the cost of the gas used would not exceed the present cost of the yeast. Here then is another of the gifts of science to the people.

The reasons which have led to the resignation of the five officers of St. Mary's Hospital, Manchester, may be given in their own words:—

1. That having been deprived by the board of management of our priviliges as trustees ex officio, and as members of the board of management, we were thereby prevented from being present at any weekly or special meeting of the board of management, or any annual or special general meeting of the trustees, although, at any such meeting, the Medical affairs of the Hospital might have come under consideration—affairs which the non-medical members of the board of management were totally incompetent to understand.

2. That by Rules 2 and 172 we should in future, have been compelled to attend children of any age, and in any disease, whether infectious or otherwise, at any time, during day or night, and at any distance within the extreme Hospital boundaries,—with which boundaries the subscriber may acquaint himself by referring to the back of the recommendation papers, including a population of nearly 300,000.

3. That by Rule 53, in all cases of disease which do not appear to yield to a plan of treatment pursued for fourteen days, the Surgeon in attendance must summon a consultation. This rule is a direct reflection upon the professional ability of the Surgeon, and Rule 78 appears equally objectionable.

4. That by Rule 94, the fees paid by medical students for attendance upon lectures and hospital practice, are to be received by the treasurer; whilst, in all other hospitals, the medical officers are entitled to such fees.

5. The following portion of Rule 16:—"That any officer of this institution may be suspended by the board of management for any cause which the board of management consider injurious to the hospital." No such power should be entrusted to any board where three are competent to form a quorum, and where the average attendance at such meetings does not extend five.

6. Rule 46 objectionable altogether.

This rule disqualifies any medical man holding office at St. Mary's hospital from holding any other appointment—so that as it appears any minor questions as to details of duty might be arranged; the questions at issue are the propriety of the Medical officers of hospitals forming part of the general committee of management, and the attempt to check Hospital pluralities—two very wide fields for discussion!

The Birmingham Hospital controversy goes on with even additional vigour. A certain Canon Miller, who appears to be a very irascible successor of the Apostles, threatens to withdraw the offertory-money of the congregation, and, as far as lies in his power, to deprive the Charity of testamentary bequests, should the attempt to secure Mr. West's election ultimately fail. The amiable Churchman has had to read a sermon on this matter from Mr. Sands Cox, which we trust he will lay to heart. The Council publicly advertised for candidates. The Professors examined the qualifications of those who came forward, and recommended Mr. Gamgee as "best fitted" for the appointment. The meek and lowly Canon has declared that he gave his vote for Mr. West, "*because he was determined not to accept the recommendation of the Professors.*" The welfare of the Charity, the sufferings of the sick and dying, the education of Medical students, were nothing to this Birmingham clergyman, who reminds us of Sydney Smith's modern good Samaritan, "without the oil and the two-pence." What could the Professors of Medicine and Surgery know about the fitness of a candidate for an Hospital Surgeoncy? Instruct a Church Dignitary, forsooth! Ridiculous! Rather turn the sick poor into the streets, and take the "testamentary bequests" of the dying sinner for a memorial window in the church.

Mr. Monk, a surgeon of Preston, who is senior alderman of the borough, and a magistrate and deputy-lieutenant for the county of Lancaster, has been remanded on a charge of poisoning a patient whose will he had forged. We sincerely trust he may be able to prove that the accusation is false. The Church and the Law have been often exposed to the charge of tampering with the wills of dying persons, but it is very seldom that our Profession has been so dishonoured.

REVIEWS.

Missionary Travels and Researches in South Africa. By David Livingstone, LL.D. D.C.L. Fellow of the Faculty of Physicians and Surgeons, Glasgow. London, 1857. 8vo. pp. 687.

Of all African explorers, from the days of the Phœnicians, Greeks, Cathaginians, Romans, and Saracens—from the days of the Portuguese and Dutch voyagers, till another Scotch Doctor, Mungo Park, ascended the Nile, and our own age witnessed Niger expeditions, and applauded the zeal of a Lander, a Barth, and a Richardson, and listened with wonder to the deeds of the mighty hunter, Gordon Cumming—David Livingstone—the Medical Columbus—stands pre-eminent. "It is far easier to travel than to write about it," says our modest manly philanthropist. "I think I would rather cross the African continent again than undertake to write another book." Yet he has written, and has brought to our firesides the artless, truthful story of sixteen years' residence and travels in the interior of Africa. He has given us, besides, a short autobiography. The son of a small Glasgow tea-dealer, he had to earn his bread in a cotton factory by working from six in the morning till eight at night. Yet he studied Latin at a night school from eight to ten, and became able to read amid the whizz of the loom. By hard manual labour in the summer he succeeded in laying by enough money to enable him to attend the University Classes in the winter, and obtain his Medical diploma, with the view of going out as a Medical missionary to China. But the opium war broke out, and under the auspices of the London Missionary Society, the Glasgow Doctor embarked for Africa in 1840. What he has done since then his book shadows forth. His arrival at the Cape, his journey to the furthest northern station—six months' seclusion among the Bechuanas—an attack from a lion—expeditions to tribes in the interior—the discovery of Lake Ngami, a hundred miles in circumference—struggles through tangled jungles and parched deserts, amid centipedes and tsetse: hippopotami, red antelopes, and flap-eared elephants; zebras, gnus, and buffaloes; lions and

rhinoceruses — the ascent of unexplored rivers — sermons illustrated by the magic lanthorn—and the exploration of a fertile district "as capable of supporting millions as it is of thousands," among the dry, thirsty, shadowless, scorching plains, and pestilential marshes, which tradition and imagination had pictured as Central Africa. All this is told in a simple, unaffected manner, as interesting to the child as to the weary artisan, the busy merchant or professional man, or the man of science who would add to his store of geographical, geological, ethnological, zoological, botanical, or medical knowledge.

We give no extracts now, but our readers may have observed for some weeks past short selections from those parts of this book most interesting to Medical men. Such extracts we shall continue to give occasionally. The volume teems with them. But the book itself should be read by every one who can afford to buy it, or can procure it from a library or book club—and who cannot? Years hence, when generation after generation of those who come after us rest from their labours, these travels of the Medical missionary will find their place on the bookshelves of the coming age beside Cook's Voyages and the Life of Columbus.

Report of the Medico-Legal Duties of Coroners. By Alexandrr J. Semmes, A.M. M.D., one of the Secretaries of the American Medical Association. (Extracted from the Transactions of the American Medical Association.) Philadelphia: 1857.

While the abuses and imperfections of the Coroner's Court are attracting attention in our own country, the same subject is receiving the notice of our professional brethren in the United States. In Dr. Semmes's very able Report we find a brief historical retrospect of the first foundation of the Coroner's office in England, and of the successive enactments of which it has been the subject; and the reporter proceeds to point out the great defects which exist in the manner of holding inquests on the other side of the Atlantic. The causes of the present inefficiency of the Coroner's office in the United States are said to be the popular mode of election; the consequent choice, very frequently, of incompetent persons or of mere political partisans; the omission of Medical qualifications in the candidates for the office; the incompetency of the jurors; the payment of the Coroner by fees for each inquest; and the insufficient payment of the Medical witnesses. The remedies proposed are, to take the election of the coroners out of the hands of the populace, and to confide it to some high and responsible legal authority; to select only Medical men for performing the functions, which are always more or less of a medical or surgical nature; to pay the functionaries by a fixed salary, instead of making it up by fees; and to remunerate adequately the Medical witnesses, and thus to secure the best available talent. The American Medical Association suggests that the Coroner should be a competent and respectable Doctor of Medicine, selected by the Judges of the Criminal Courts, and responsible for the discharge of his duties; that in all cases of suspicious death notice shall be given to him by the magistrates, police, or other proper authorities; that he shall receive notice of every death, natural or otherwise, in all prisons and places of penal confinement, that on receiving such notice, he shall call to his aid two other doctors in medicine, and with them shall proceed to make a full and thorough inquiry; and that, if he so pleases, the investigation shall be private. Whether all these suggestions are applicable to our own country may perhaps be a matter of question; but it is clear that the system requires revision on both sides of the ocean, and that the time has now come for reform in the Coroner's Court.

The Rambles of a Naturalist on the Coasts of France, Spain, and Sicily. By A. De Quatrefages, Member of the Institute, etc. Translated by E. C. Otté. In two volumes. London: 1857. 8vo. Pp. 355; 375.

There are not many men endowed with the happy power of teaching abstruse subjects in a popular manner, and Frenchmen certainly do not shine, as a general rule, among the popular expositors of science. Our lively neighbours have no Hugh Miller, no Kingsley, no Faraday. But M. de Quatrefages, the learned Professor of Ethnology at the Museum of Natural History at the *Jardin des Plantes*, has done a great deal to bring a correct knowledge of zoology and general physiology among the educated classes of his countrymen; and the account of his rambles, placed within the reach of every member of our own Literary Clubs and Mechanics' Institutions by M. Otté's translation, is calculated to be of great use, by adding to the taste for zoological and physiological knowledge, by imparting interest to country walks and holiday tours, and by affording a definite scientific basis for improvement in the breeding of cattle, the rearing of domestic animals, and other practical applications of science, to the pecuniary profit of the reader. The artificial rearing of fish and leeches, the breeding of shrimps and oysters, the fattening of agricultural stock, the acclimatization of foreign animals, are all instances of the profitable or utilitarian aspects of zoology. In all his rambles M. de Quatrefages keeps these aspects before him, and follows worthily in the steps of the great men who have gone before him, and set the example of making the highest truths of science so plain that he who "runs may read."

Atlas of Human Anatomy and Physiology. By W. Turner, M.R.C.S. Eng., Demonstrator of Anatomy in the University of Edinburgh. The Illustrations selected and arranged under the superintendence of John Goodsir, F.R.S.

Handbook to the Atlas. By W. Turner, M.R.C.S. Eng. Edinburgh: 1857.

This Atlas and the Handbook form part of the series of educational works of Messrs. Johnston. The object is to assist the popular teacher of physiology. There are eight large plates in this Atlas, representing the bones and their structure, the joints and ligaments, the muscles, the heart and arteries, veins and lungs, organs of digestion, nervous system, organs of sense and voice. Allowing for the heightened colouring, which is perhaps necessary for plates intended to be seen from some distance, we regard this work as worthy of the support of all those who desire to promulgate a more correct and extended knowledge of the great truths of anatomy and physiology among all classes of the community. The arrangement of the plates is quite worthy of Professor Goodsir; and Mr. Turner has done himself credit by his clear and popular descriptive Handbook.

A Handbook of Chemical Manipulation. By C. Greville Williams, Lecturer on Chemistry in the Normal College, Swansea, &c. London: 1857.

This work is especially devoted to chemical manipulation, and is intended for those students who, while desirous of pursuing chemical researches, are unable to attend a school of chemistry, as well as a companion for those who can obtain the advantage of regular instruction in a laboratory. The book is profusely illustrated by excellent woodcuts; and the author has executed his design in a manner which must render his work a standard of reference for chemical manipulation.

A Manual of the Practice of Medicine. By T. H. Tanner, M.D. F.L.S. 3rd edition. London: 1857. 12mo. Pp. 451.

It is hardly necessary to say more than that a third edition of this little manual has been demanded, and appeared, with some revision and additions.

PROGRESS OF MEDICAL SCIENCE.

Selections from Foreign Journals.

ON THE FRENCH ARMY IN THE EAST.

By M. BAUDENS.

(Continued from page 584.)

11. *Gun-shot Wounds.*—Much of the gravity of these arose from the substitution of conical bullets. Impelled with greater speed they enter in a straight line, and produce more numerous and more extensive fractures of the bones. Resistance changes their shape without ever hardly causing them to deviate from their course. They become flattened, elongated, or even separated into pieces, oftener than is the case with round balls. The aperture of exit is almost always opposite to that of entry, while the passage of a round ball is rarely direct. The propriety of *debridement*, or division of these

apertures, formerly in Algeria held as a surgical dogma, did not meet with a single defender in the Crimea. Splinters were, however, removed, in anticipation of the endless suppurations and sufferings they give rise to. A smooth, round ball, inducing much less irritation—efforts at its extraction should not be too long persevered in.

12. *Amputations.*—M. Baudens speaks highly of the supra-malleolar amputation, as contrasted with that performed higher up; and stigmatises those surgeons as unskilful who operated in the middle of the calf, thus leaving a large traumatic surface, and a stump to which a wooden leg is applied with difficulty. The experience of the Crimean surgeons affirms that whenever the leg cannot be amputated, disarticulation of the knee is to be preferred to amputation of the thigh. Such disarticulation should, however, be immediate, the natural disproportion of the bony to the soft parts being increased by emaciation, the consequence of suppuration and suffering. Before this war the principle was generally laid down that gunshot fracture of the femur rendered amputation unavoidable. But the recovery of several cases, the splinters being first removed, by the aid of the author's fracture apparatus, both in the Crimea and at Constantinople, shows that this statement has been made too absolutely. While for the success of amputation at the knee-joint its immediate performance necessary, amputation at the hip-joint seems only to succeed on condition of being postponed; and therefore, in such cases, we must first endeavour to preserve the limb. Amputation of the upper extremities may be often prevented by the removal of splinters or by the performance of resections. These may be frequently performed on the field of battle, and many limbs saved that formerly would have been lost. Conservative surgery should especially be employed in respect to fractures of the hand, never forgetting that the preservation of an ill-shaped trunk of a finger may yet be useful. Resections of the lower limbs are less practicable, especially when the wounded are exposed to long and difficult transport. The splinters, too, are less easily removed, owing to the larger size of the muscles. Thus, a comminutive fracture of both bones is usually a case for amputation, unless the patient can remain for some time at rest under competent care. When either bone is alone fractured resection, or even the removal of splinters, often suffices; and perforations of the foot by balls are less serious than they were long supposed to be, amputation being almost always preventible by the removal of the splinters.

13. *Hospital Gangrene.*—This, proving the greatest enemy to the Surgeon of the Army of the East, arose from overcrowding, and attacked wounds in numerous cases, even when just healing. The first remedy is isolation in uncontaminated spots; and for this purpose, tents, enabling the air to be renewed, were found of great service. When wards have once had patients in them suffering from gangrene, their purification is a matter of difficulty. They should be closed for a while, lime-whited, and frequently fumigated with chlorine. For local treatment, the actual cautery, or the perchloride of iron, which insinuates itself into all the sinuosities of the sore, was employed; dressings of lemon-juice, charcoal, or cinchona and camphor, proving useful auxiliaries. Cold lotions, allowed to fall *guttatim*, exerted a useful sedative effect, especially when the pain was severe; and sometimes iodine injections were found useful. All such means were only adjuvatory, caustics alone being relied on.

14. *Congelations.*—There were numerous congelations in both the winters of 1855 and 1856, but the cases observed in the two differed. In 1855 the cold was not intense, and it was chiefly through standing in the cold wet, especially in the trenches, that the mischief was done. There was tumefaction accompanied by redness, and gangrenous spots of various sizes. There were to be observed the same six degrees of change as described by Dupuytren for burns. It was a humid gangrene. In the winter of 1856, when the thermometer often descended to 20° C. below zero, dry and sudden gangrenes seized soldiers while asleep, or during transport to the ambulances. The feet became dried up like parchment, reduced in size, pale, and colourless; then followed a black, dry eschar, a true mummification. Until the fall of the eschar the suffering and eliminating fever were moderate, and the appetite was preserved; but when at a later period the parts became detached, the pain became violent, fever lighted up, the great viscera sympathized, and death, in spite of all remedies, frequently supervened. Any attempt at hastening the slow process of detachment was followed by increased mischief. Amputations did not succeed, and expectant treatment was found to be the best. Before setting out on his tour of inspection, M. Baudens had seen 300 of these patients who had been sent to Marseilles, and who, having suffered from partial congelation of the feet, were on the way of recovery without the intervention of art. Whenever a portion of one of the toes could be saved, nature had saved it, even when all the rest were gone; and nothing could be more various, or, so to say, ingenious than the conservative procedures she adopted. The Surgeon should leave her to herself, or only imitate her. He should, indeed, only interfere when she seems powerless, and even then only with the greatest caution, especially if Hospital gangrene is feared.

15. *Employment of Chloroform.*—M. Baudens strongly approves of this in military surgery. It has enabled Surgeons to regularise wounds to all appearance mortal, and which, without its aid, they would not have ventured to treat thus energetically, for fear of giving rise to useless suffering. Wounds so treated have always become less painful, and sometimes have been followed by unhoped-for recovery. If the inhalation be not persisted in to an injudicious extent, it may always be safely employed; but to carry it to the production of muscular resolution is reprehensible rashness. The Surgeon should always stop when insensibility to pain is produced, the movements of the patient being easily restrained by assistants. These rules having been observed, no fatal consequence ensued from the administration of chloroform during the campaign of the East, although it was there employed at least in 30,000 cases.

16. *Outbreak of Cholera in the Dobrutcha.*—M. Baudens gives a graphic account of the outbreak which ravaged two divisions of the French army despatched into the Dobrutcha, as a diversion just before the commencement of the siege of Sebastopol. The soldiers, as well as the Bachi-bazouks sank by hundreds and thousands, and the expedition was obliged to retrograde from this dreary and marshy region; and on the return the divisions had become reduced by one-half of their effective force. It was only through the energy with which General Bosquet insisted upon the hygienic suggestions of the medical officers being carried out that the loss was not even yet greater. M. Baudens is certain that no cholera prevailed in the Dobrutcha before the invasion of the French troops. Cases had already shown themselves in the Varna hospitals, and these troops took the germs with them into only a too favourable soil. Exposed there to great vicissitudes of temperature, severe storms, and various discomforts and privations, the ravages of the disease became fearful; and the various occasions in which the disease afterwards reappeared in the army were always coincident with the existence of analogous depressing influences.

Although we have yet to seek a specific remedy for cholera, attention to its premonitory symptoms will almost always avert the attack, or render it innocuous—for so rare are sudden, *foudroyant* cases, that some deny them altogether. Rest in bed, the encouragement of transpiration, flannel next the skin and abstinence, are all that are wanted. In the algid form we have to restore the temperature and the power of the pulse, and warm aromatic drinks, or a few drops of ether are indicated. Vapour baths are also of remarkable efficacy. These, and other common means of inducing reaction, could not be carried out in the Dobrutcha, and many patients died without reaction taking place. Stimulation may, however, be carried too far, and give rise to fatal visceral congestion. Reaction prudently induced is almost an infallible indication of recovery, and it may be always moderated in its course by venesection and acidulated drinks.

17. *Diarrhœa and Dysentery.*—So general was the prevalence of diarrhea, that it might be said that all other diseases were preceded by its acute form and terminated in its chronic form. This serious complication is indeed always met with in armies during campaigns, and is dependent upon the privations of the soldier's life, nostalgia, and many other influences impossible of prevention. Dysentery was almost always preceded by more or less severe diarrhœa. The form of acute diarrhœa so often met with in soldiers at the beginning of the campaign is usually speedily relieved by a few days' rest, regimen, a flannel belt, together with feculent drinks, and a few drops of laudanum; and if it were always possible so to treat these cases, and guard against relapse by hygienic precautions, certainly more than half of the serious cases and of

the mortality would be prevented. In the chronic stage astringents are only of apparent and temporary benefit, and sometimes are even hurtful. The best tonic is good wine, given in small and repeated doses, under the surveillance of the Surgeon; and the most efficacious treament consist in the administration of small doses of opium, either alone, or with ipecacuanha, or with small doses of sulphate of magnesia. A severe and persevering regimen can alone preserve from relapses that are very often fatal. The disease would have made far greater ravages than it did had it not been for the excellent spirits maintained by the French troops throughout the whole campaign, in spite of their sufferings, and which seemed most manifested at the most critical junctures.

18. *Typhus Fever.*—The French hospitals at Constantinople became crowded with fever patients, and the Sultan gave up his new palace at Pera for additional cases. During the twenty-two months of its existence there were admitted into this hospital 27,000 patients, of which number 9460 were discharged well, 13,000 were sent to other hospitals or to France, and 5040 died. The winter of 1856 witnessed at these various hospitals severe epidemics of scorbutus and typhus. The Turkish troops encamped at Eupatoria sent every month 1000 of their scorbutic patients to Varna, where abundance of fresh vegetables soon re-established their health. M. Baudens endeavoured to obtain a place of similar resort for the French troops in the Isle of Mételin, where thousands of scorbutic patients, many of whom became victims to the subsequent typhus, might have been saved. The typhus of the Crimea amply exhibited the differences that exist between this disease and typhoid fever. Typhus differs from most other epidemic diseases, such as variola, scarlatina, &c., for while these depend upon unknown conditions impossible of prevention, the causes of typhus are so well known, that we can generate or dissipate the typhic influence at will. Moreover, while the other epidemics are of temporary duration, typhus persists and indefinitely extends its ravages, until the proper means of subduing it have been resorted to. It bursts forth more or less rapidly, according to the intensity of the infection or the powers of resistance. Every patient disengages dangerous emanations, and when the wards become crowded the epidemic centre acquires great energy, and implicates all in attendance upon the sick. In this way the Medical body and nurses have suffered cruelly during this war. Some of the Medical attendants, less predisposed or endowed with greater powers of resistance or of elimination of the absorbed poison, have yet exhibited the epidemic influence, though in a less marked degree. Whenever an increase of intensity of the infection has been exhibited by an increased number of eases, they suffered from cephalalgia and sleeplessness, the tongue becoming dry, and the physiognomy typhic. In three or four days these symptoms disappeared; but sometimes the morbid condition persisted, and then the issue was almost always fatal. The progress of the Crimean typhus has been often complicated and rendered irregular by scorbutus, dysentery, and intermittent fever. It was in January, 1856, it began to assume alarming proportions. During the latter part of the siege, hospital gangrene, "the typhus of wounds," had committed its greatest ravages, and scorbutus prevailed alarmingly; and the outbreak of typhus only awaited the overcrowding unavoidable in winter. Moreover, after the fall of Sebastopol, the energetic excitement, which supplied much power of resistance to disease, subsided. The prodromic, inflammatory, and nervous periods of the disease were sometimes traversed with frightful rapidity, death occurring in the third, the second, or even on the first day, the disease being then truly *foudroyant*. It rarely persisted beyond the fifteenth day, independently of congestive complications. Return to health was almost always accomplished within twelve days, the patient passing, as it were, at once from death to life, and his strength being recovered with great rapidity. The primary object in treating the disease was to secure isolation and an abundant supply of fresh air. Local bleeding was usually to be preferred to general, even when congestion prevailed; and when the disease was complicated by remittent paroxysms quinine was given. In the nervous period tonics, such as port or Malaga wine, expedite the cure.

This outbreak of typhus was the most terrible trial the army of the East met with; and very soon typhus patients amounted to a fifth of the whole Hospital population. The number of deaths rapidly increased both at Constantinople and at the Crimea. In February the number of patients in the Crimea rose to 19,648, of which 2,400 died, and 8,738 were forwarded to Constantinople. In the same month the numbers rose in the Hospitals at Constantinople to 20,088. Of these 2,527 died, and 4,266 were sent to Gallipoli or to France. What were the ravages of the plague of Egypt in 1792 to this?—about 700 men only then perishing. Amidst all this mortality the inhabitants of Constantinople did not contract the disease, and manifested no uneasiness. Yet were the ravages in the fleet so considerable (200 soldiers dying daily between the Crimea and Constantinople), that the continuance of the transport service was seriously menaced, the sailors catching the disease and entering the Hospital with those whom they had brought over.

Separation and free ventilation were urgently called for; and M. Baudens urged these upon the authorities, though at first but with partial success; and even when invested with full powers by the Minister-at-War, he found it impossible to effectually distribute the ever-increasing number of patients. He returned to the Crimea in the hopes of arresting the departure of additional cases, for which no accommodation could be provided at Constantinople. He there found the disease extensively prevailing, not only in the ambulances, but in the regiments. The mortality, too, was fearful; for while from the 20th to the 29th of February, 519 patients left the ambulances cured, 873 had died in the same time; and in typhus alone there were 27 recoveries, and 383 deaths. M. Baudens insisted upon sending away the patients not suffering from typhus, and dispersing those that were, as well as the adoption of various hygienic measures. He conferred with the colonels of all the regiments, and always found that the health of the men was proportionate to the solicitude of the officers. By the end of March the improvement was most marked, the number of cases diminishing by 500 during the last ten days. On the ten days ending March 17, 283 recoveries were announced, although the preceding series of ten days since the 1st of January had only furnished 7, 14, 25, 36, 27, 62, and 45 recoveries. But these 283 recoveries had still to be contrasted with a mortality of 699, and 50 new cases still appeared each day. M. Baudens insisted upon a still stricter fulfilment of his directions, and soon with the happiest results.—*Gazette Médicale*, Nos. 13, 14, 17, 20, 22, 25, 27, 31, 33,53.

EXCERPTA MINORA.

Coffee and Lemon-juice in Ague.—M. Von Holsbeek draws attention to a mode of treatment he has found useful. Infuse an ounce of well-roasted coffee in three ounces of boiling water, and having strained the fluid, acidulate it with lemon-juice. The whole is given at once, five hours before the paroxysm.—*Presse Belge*, No. 42.

Pressure in Phlegmasia Dolens.—In relating the case of a young man who had suffered from phlegmasia dolens, and in whom the superficial veins continued much swollen, M. Trousseau cautioned his pupils against applying in similar cases firm bandages. The deep-seated veins being obliterated, this enlargement of the superficial ones is a necessary consequence, and compressing them by a firm bandage would completely interrupt the circulation of the limb. A moderate degree of pressure, however, is admissible, as giving support to the walls of the superficial vessels, and preventing their becoming varicose.—*Gaz. Hôp.*, No. 137.

Iodine in Obstinate Vomiting of Pregnancy.—As we have already noticed, M. Eulenberg strongly recommends tincture of iodine for obstinate vomiting. Other practitioners have tried it with varying results; but according to the experience of MM. Becquerel and Buisson, the tincture acts most advantageously when combined with iod. of pot. The following is M. Buisson's formula:—tr. iod. ʒi., iod. pot. ʒi½, aq. dest. ʒxxx. A table-spoonful is placed in a glass of sugared water, and this is to be divided into three doses, to be taken during the day.—*Gaz. Hôp.*, No. 137.

Dry Cupping in Typhoid Fever.—Affections of the respiratory organs occurring in the course of typhoid fever constitute a very dangerous complication; and M. Becher has treated them of late at the Beaujon with great success by the application of large numbers of dry cupping-glasses to the chest, and especially to the lower extremities. The number has varied from twenty to eighty cups, divided into two series, one applied in the morning, the other in the evening. The number in some patients has amounted to five hundred in ten days. Large ecchymoses form on the limbs, but these have never given rise to the least mischief; while the thoracic

symptoms become effectually relieved. M. Becher declares that since he has followed this plan, the mortality of these fevers with this heretofore dangerous complication has fallen to zero; and M. Bourdon, of the Lariboisière, reports as favourably. M. Becher has not found the same benefit result in the comatose form of typhoid fever.—*Bull. de Thérap.*, Nov. 15.

Example of Remarkable Height and Obesity.—Mr. Darden was born in North Carolina in 1798, and died in 1857. He was 7 ft. 6 in. high, and at his death weighed a fraction over 1,000 lbs. To 1853 he was quite active, and laboured; after when, his fat increasing, he was hauled about in a two-horse waggon. It required 13½ yards of flax cloth, a yard wide, to make him a coat; and 16 yards of cambric were required for his shroud, and 24 yards of velvet for his pall.—*Amer. Med. Journ. Science*, Oct. p. 560.

Preservation of Vaccine Lymph in Glycerine.—Dr. Andrews, of Chicago, has made some successful experiments in the preservation of vaccine virus by solution in glycerine, using the solution instead of the solid matter. The solution was kept for two or three months in warm weather, when seven cases were vaccinated without a single failure. The scab should be broken into three or four pieces, and thrown into a little glycerine, which is to be occasionally shaken; it dissolves slowly without other care.—*Amer. Journ. of Med. Science*, Oct. p. 561.

FOREIGN CORRESPONDENCE.

FRANCE.

Paris, December 7, 1857.

It is high time for practitioners to take notice of some empirical means which, employed by quacks or by uneducated men, seem to be sometimes very rapidly successful in cases of sprain. M. Girard, a respectable Military Surgeon, has recently sent to the Académie des Sciences a paper, by which we are legitimately led to this assertion. There are common people in all the large cities in France, and probably also in Great Britain, who pretend to cure quickly ankle-sprains. By what means do they succeed, if it be true that they do? M. Girard saw once an officer, who having fallen from horseback had sprained his right foot, and who was treated successfully simply by rubbing, by pressure, and by alternative movements of flexion, extension, etc. M. Girard relates two cases treated by himself, in which ankle-sprains were quickly cured by these means. In one of the cases the sprain was a violent and recent one. In three hours of rubbing and pressure the swelling and the pain disappeared, and the next day the patient, a military man, had resumed his duty. In the other case, which was of six weeks' standing, after eight days of treatment the patient was cured. Professor Nélaton has already pointed out the importance of trying these means. M. Girard remarks, that ankle-sprains are dangerous enough to deserve the earnest attention of practitioners to their treatment; he states that, according to a statistic of M. Baudens, out of 78 amputations of feet or legs, 60 had been rendered necessary by alterations consecutive to sprains.

A part of a very interesting paper has been presented to the Academy of Medicine by Messrs. Bourguignon and Delaford, "On the animalcules of the itch of man and animals, and on the transmission of itch from animals to man." One of the general results arrived at is, that each species of animal has a special kind of itch and of animalcule. The authors have ascertained this fact in the horse, the ox, the sheep, the cat, the rabbit, the dromedary, the lion, the fox, and several other species. They divide the various kinds of animalculæ into two genera, the *sarcoptes* and the *dermatodectes*. They describe the customs, the mode of reproduction, the instincts of these various kinds of animalcules. In a second paper, they will speak of contagion from animals to man.

An animated discussion has taken place at the Société de Chirurgie on the method of extirpation of tumours by caustics. M. Maisonneuve originated this discussion, by showing to the Society a large tumour of the mamma, which had been separated from the breast in consequence of successive applications of chloride of zinc round the basis of the tumour. He asserts that by this means the largest tumours may be removed in eight or ten days, and that the action of chloride of zinc, which is not very painful, is superior to the ablation with the knife, in preventing hæmorrhage, and in not being followed by erysipelas or purulent resorption. He states, also, that the caustic attacks morbid tissues, and not those which are normal. The great objection made to the method proposed by Maisonneuve is, that the use of caustics is much more painful than he says. But the proportion of chloride of zinc, as M. Follin has shown, after M. Stanley, may be such that pain may be extremely diminished. It appears, from the discussion at the Society, that more attention should be paid to the views of Maisonneuve than they have received till this time.

M. Fleury addressed a note to the *Académie des Sciences* at the last meeting, announcing that he has treated successfully 114 persons, attacked with intermittent fever, simply by *douches* of cold water. Forty-three of these cases were recent and 71 old, and had resisted other treatment. In all these last cases, there was a swelling of the spleen or the liver, or of both, and a state of anæmia or even of cachexia. In some there was a complication of dysentery, hematuria, scurvy, albuminuria or hallucinations. No other mode of treatment had been employed but cold *douches*, and there has been only one reappearance of the disease. Only one douche has been enough to cure in some cases, never has it been necessary to employ more than five. This influence of the douche exists only when it is applied just before the fever sets in, or immediately after it has begun.

Some time ago M. Blondlot, of Naney, who is both an able physiologist and a chemist, sent a paper to the *Académie de Médecine*, on a source of error in making use of Marsh's method for finding arsenic. A report by M. Poggiale on this paper was read at the Academy on Tuesday last. It is known that Messrs. Flandin and Danger have proposed to modify the method of Marsh by applying sulphuric acid to carbonise the organic matters suspected of containing arsenic. M. Blondlot, while examining the stomachs of three persons who had been poisond by arsenious acid, found on the mucous membrane small fragments of this acid, which superficially were of a fine yellow colour. He thought that this yellow matter resulted from the formation of a sulphide of arsenic, resulting from the action of sulphydric acid on the arsenious acid, and ulterior experiments proved the correctness of this view. As sulphydric acid is formed in putrified organic matters, if they contain arsenic, the sulphide of arsenic, will be formed; and M. Blondlot shows that employing sulphuric acid to carbonize these matters, will leave with the carbonized parts the sulphide of arsenic, so that a portion of the poison will be lost. The committee of the Academy has ascertained the exactitude of the assertions of M. Blandlot, and to avoid this source of error they propose to throw upon the carbonized remnant a great deal of concentrated and boiling nitric acid, so as to transform the sulphide of arsenic into arsenious acid. By distilled water the excess of nitric acid is then expelled, and the arsenic my easily be found by the method of Marsh.

M. Marchal (de Calvi), about two years ago, tried to prove that new paint may poison by its turpentine. A new case, which seems to prove the correctness of this opinion, has been recently observed by M. Faucot. A lady, after having been three hours in a cold bed-room, the windows and doors of which had been freshly painted, felt very sick, and the Physician found her in the following state;—Face pale, great anxiety; eyes surrounded by a dark circle; voice extinguished; weakness; the limbs in a state of resolution; violent pain in all the joints; violent and continued abdominal pains, obliging the patient to bend her body; frequent nausea; respiration, short, rapid; pulse filiform, hardly perceptible; viscous perspiration. The lady was carried to a neighbouring hotel. She was treated by sinapisms and vapour-baths. After eight days only she was cured.

M. Gigon recently announced that there is albumen in normal urine, and that chloroform is the best test for albumen. These startling assertions have excited M. A. Becquerel to examine the mode of action of chloroform on urine, and, in a paper sent to the Academy of Sciences, this chemist states that the precipitate formed by chloroform with normal urine, is not albumen but mucus, and that, even when there is albumen in urine, a part only of it is precipitated by chloroform. As to the presence of albumen in normal urine, M. Becquerel affirms that, after a careful examination with the best tests, he has not detected the least appearance of this principle.

M. Boinet writes to the Academy of Sciences that the

method consisting in taking out only parts of the liquid in cases of pyothorax, a method which M. Sédillot has recently spoken of as a new one, had been proposed by him three or four years ago.

M. Maude, the micrographer, who practises medicine in Paris, proposes to treat chronic bronchitis by the following fumigations, in an apparatus composed of a balloon of glass with two openings, one of which is in communication with an india-rubber tube. He places 60 grammes (1½ ounces) of water, and 5 grammes (75 grains) of the following composition:—Acetic acid, 50 grammes creosote, 5 grammes, water, 500 grammes. The liquid is heated, and the patient inhales the vapours. Gradually the strength of the liquid is increased. The varieties of chronic bronchitis which are best treated by fumigations are, the dry catarrh of Laennec, the pleuritic bronchitis, and the chronic bronchitis with a subcrepitant *râle*.

GENERAL CORRESPONDENCE.

TARAXACUM A SOURCE OF FALLACY IN TESTING FOR MORPHIA.

[To the Editor of the Medical Times and Gazette.]

Sir,—Dr. Letheby's letter in your last number forces upon me the painful duty of making a full disclosure of the facts of the case.

The letter embraces three distinct points:—

1. That I made a charge against him; acted uncourteously; and provoked a public controversy without acquainting myself with the facts in dispute.

2. An attempt to show that he committed no error in his analysis and evidence in the Dagenham case.

3. (On which the whole of his case rests), An endeavour to upset the identity of the taraxacum mixture with the "dark-coloured ethereal mixture in the six-sided bottle."

I shall take these points in order.

1. When I was getting up the report of the inquest I applied to the coroner for a copy of Dr. Letheby's letter to him, but he objected (in a note now in my possession), to let me have it, on the ground that "the only effect of it would be to show that Dr. Letheby had made a mistake, and then was candid and honest enough to avow it." Thereupon I assured the coroner that I had no such ungenerous motive as a desire to publish Dr. Letheby's error, but solely desired to have a most important point in legal medicine set at rest; that I thought I should be more likely to do him justice if in possession of the precise words used by him; and that "in any case I should express my report in such terms as to be as little as possible offensive to Dr. Letheby's feelings and reputation." Upon this the coroner sent me a copy by return of post, and I need only refer to my original letter for proof that I fulfilled conscientiously the assurance I had given him; for it contains no charge whatever; it civilly invites Dr. Letheby to give the Profession his important observations upon the "resinoid body;" and it is studiously limited to the scientific question raised.

2. A. Dr. Letheby admits that he carefully tested for opium.

B. He now says he found a trace of morphia, but he specifies the tenth of a grain, which no chemist would call a trace, as it is a visible and ponderable quantity, equal to one grain of opium. A grain of opium is not a trace.

C. Although he stated and believed that morphine, or opium, was present in the contents of the stomach, (amounting to half a tablespoonful as he now says,) he does not tell us that he found, or even sought for, meconic acid, although a grain of opium in two drachms of liquid ought to give abundant evidence of its presence; and Dr. Taylor and Mr. Scanlan have told us that no chemist is justified in pronouncing on the presence of opium until he has found meconic acid to be clearly present.

D. He admits that at the inquest he assigned the death of the woman to a poison which she had not swallowed, and which was not found in her stomach.

E. Dr. Letheby says, "I reserved my final opinion until I had seen the medicines and examined them." But on the same day that he gave his evidence, the coroner went to Mr. Macarthy, and openly stated in the shop that Dr. Letheby had found morphine, and desired to have Dr. Tabrum's prescription. Moreover police-serjeant Stratford applied to the chemists to know if morphine had been purchased by any one about the deceased. I can testify that a portion of the jury expressed their determination to suggest the exhumation of the child (which had died suddenly), if morphine proved to be absent from the medicine. All these facts, and the quotation from the coroner's note to me, prove that Dr. Letheby did not reserve his opinion.

F. He betrays in his own letter how it was that he fell into error, for, after reciting that the woman was well over-night, died suddenly, took some medicine just before her death, and was deeply comatose before she expired, he says, "All these considerations led me to the conclusion that she died from morphia;" so that instead of taking the symptoms only as a guide what poison to search for, he actually made the results of his analysis tally with the symptoms!

3. We now arrive at his attempt to overturn the identity of the taraxacum with the "dark coloured ethereal mixture in the six-sided bottle." (I must premise that a second (oval?) bottle of medicine, which deceased had from Mr. Macarthy's several months before, was sent to Dr. Letheby with the six-sided one, but there was no pretence that she had taken any other medicine than the pills and taraxacum mixture before her death; for which alone the coroner therefore required to have the prescription.)

Dr. Letheby commences with the oval bottle, says it contained a liquid of a "pale sherry colour," describes certain reactions, and then says, "This, therefore, was the taraxacum mixture." That it was not the taraxacum mixture the following evidence proves conclusively:—

A. Mr. James Macarthy, M.R.C.S., who himself dispensed the prescription in his brother's shop, has told me on two occasions that the taraxacum mixture was the "dark ethereal mixture in the six-sided bottle."

B. Mr. C. Macarthy writes to me as follows:—

"November 28, 1857.

Dear Sir,—The mixture to which you refer, viz. that made by us for the late Mrs. G., July 22, was (as described in Dr. Letheby's letter to the coroner), a dark ethereal mixture.

I have since remade the mixture with the same extr. tarax., acid nitr., etc., and it still makes a dark ethereal mixture, and in no way resembles the colour of pale sherry.

Yours truly,

C. Macarthy."

C. Every tyro in dispensing knows that one and a half drachms of dark extr. tarax. in eight ounces of water will not make a pale sherry coloured mixture.

Dr. Letheby then proceeds to the six-sided bottle, and says its contents had the colour of dark port wine, and an ethereal and camphoric odour; and then describes certain reactions like those of morphia.

"These," says he, "are the characters of morphia; but it was not morphia, for I could not separate it in the crystalline form, and it was freely soluble in ether." Mark that he says what it was not, but he does not tell us what it was!

Mr. C. Macarthy authorizes me to state that he called on Dr. Letheby in the London Hospital, and there saw the alleged taraxacum mixture in an oval bottle, and the dark port-wine coloured mixture in a six-sided bottle, to which Dr. Letheby ascribes the reactions of morphia. He examined the latter in Dr. Letheby's presence, and immediately recognized it as a mixture of his own making, which he always keeps in stock, and a bottle of which had been given to deceased by Mrs. Macarthy a few months before her death. He told Dr. Letheby every ingredient it contained; viz. infus. sennæ comp., magnes. sulph., liq. am. acet., vin. ant. pot. tart., sp. eth. nitr., mist. camph. So that Dr. Letheby is deliberately ascribing the reaction of morphia to a mixture which the man who made it says he told Dr. Letheby was a senna mixture!

Woe to the relatives of the man who dies comatose after taking a black draught! The contents of his stomach will give the reactions of morphia, and there will be none of the draught left to set the analyst right.

Dr. Alfred S. Taylor, who is without doubt as competent a judge of chemical evidence as any man living, replies to these questions for us. I have had the gratification of receiving from him a letter, in which he tells me he cannot see that Dr. Letheby's statements in the slightest degree alter the facts

which I published, or the conclusions which I drew from those facts; and he authorizes me to say "that the impression conveyed to his mind by my letter in the *Medical Times and Gazette* of August 29, is fully confirmed by the admissions in Dr. Letheby's own letter published three months afterwards, namely in the *Medical Times and Gazette* of November 28.

Dr. Letheby loftily concludes his letter by saying that his mode of conducting such investigations as these is very different from that of Dr. Taylor! I fancy that every reader of the "Taraxacum Case" had arrived at that conclusion long ago. I am, &c.

Romford, December 1, 1857. NORRIS F. DAVEY.

[We have been obliged to omit some sentences in the above letter likely to complicate the scientific questions at issue by personal dispute.—ED.]

THE ARTIFICIAL MEMBRANA TYMPANI.

[To the Editor of the Medical Times and Gazette.]

SIR,—The point at issue between Mr. Yearsley and myself may be expressed in a few plain words.

1. Mr. Yearsley in 1848 made the following discovery of a mode of healing perforate membrana tympani (the italics and words in brackets in the quotation are mine, and the reasons obvious):—"A small piece of wool, differing [how, we are not told] in size according to the case, and fully moistened in water, is introduced through the speculum to the bottom of the meatus, and adjusted *superiorly*, *inferiorly*, *anteriorly*, or *posteriorly*, according [how?] to the situation of the perforation and other circumstances [what they are we are not told] connected with the case; but care must be taken that the entire opening be not covered, otherwise the experiment will not succeed" [an egregious mis-statement]. He adds, "It is far from my wish to discourage the attempts of others [why say a word about it, then?] to place aright these magical bits of wool, but truth compels me to add, that, simple as it may appear, it is an operation requiring the most *delicate tact* to manipulate with success, which *great experience* only can confer." To prove the value of the latter assertion Mr. Yearsley is now selling a patented article under the name of the artificial tympanum!—a piece of cotton wool about the size of the last joint of the little finger, with a piece of thread fastened to it, and this is for patients themselves, with "most delicate tact," of course, to "adjust superiorly, inferiorly, anteriorly, and posteriorly, according to the situation of the perforation," leaving, of course, the indispensable hole! Surely the readers of the "Vicar of Wakefield," or of Carlyle, know the appropriate words to be used here.

To be quite plain, what do those directions mean? I will not pain Mr. Yearsley by saying what they appear to his Professional brethren to mean, but I will tell him that they do not mean what I mean (and I say it without fear of being thought to praise myself—far from it) when I publish my most minute and particular directions for the application of the artificial membrana tympani—"Medical man, in whatever part of the world you are, if you meet with this pamphlet or this lecture, you with due care, skill, and attention may apply the artificial drum, and relieve your patient, deaf from a perforate drum."

2. With Mr. Yearsley's single fact before me I sent a paper to the Royal Society on the structure of the membrana tympani—it is published in the *Philosophical Transactions* for 1851; a paper by me was read at the Royal Society, tending to show that the sonorous undulations do not pass through the chain of bones to the labyrinth, but through the air in the tympanum; another paper by me was also read at the Royal Society, showing that, contrary to all preconceived ideas, the Eustachian tube is closed, except during the momentary act of swallowing. Upon these papers and the fact of Mr. Yearsley, I advance the view of the practicability of forming an artificial membrana tympani; a view never previously advanced; and why? it would simply have been laughed at, because it was supposed that the chain of bones connected the vibrations. For how was the artificial drum to be fixed to the chain of bones, when, as a rule, the handle of the malleus had disappeared? and here it may be observed that the most absurd term "artificial *tympanum*" was never used by Mr. Yearsley until I had invented the artificial membrana tympani. Well, in my paper *on the artificial membrana tympani, and in my lecture, I published all Mr. Yearsley's directions respecting the application of his cotton-wool discovery.* From the time of the publication of my paper to the present moment, my most intimate friends, or others who may not be my friends, and those who have written on the subject and read all about it, *never hinted*, in public or in private, *that I had not done full justice to Mr. Yearsley.* The only hint was of an opposite kind, that of such a production as Mr. Yearsley's I ought to have taken no notice. Feeling that if I erred at all, I would err on the side of justice, I published my supplementary lecture on the artificial membrana tympani. Mr. Yearsley calls it an instalment of justice. I uprightly declare it is more, fifty times more, than justice to Mr. Yearsley and his *tympanum*.

The Society of Arts had, I believe, all the documents before them when they awarded me their medal; if they had not, and if they are not satisfied with their award, I will at once replace the medal in their hands, together with Mr. Yearsley's paper, a box of his patented tympanums, and my three Royal Society's papers, and my brochure; if they confer it on Mr. Yearsley, I will promise to be at the expense of a new medal, or even pay for one of any other metal.

If the medal is awarded to Mr. Yearsley, and I pay for it, I shall stipulate that on one side of it there be a portrait of the discoverer receiving five shillings and sixpence, the price of a box of tympanums just sold to a stone deaf old lady. The inscription to be as follows:—"Awarded to the erect figure on the opposite side, who seeing an American's deafness improved by having the orifice in his drum closed by a piece of wet paper, with a bold flash of inventive genius suggested in place of paper cotton wool, and who by his profound knowledge of anatomy subsequently named his 'magical bits of wool'—*artificial tympanums!* Awarded, secondly, for the discovery that these magical tympanums must be placed 'superiorly, inferiorly, anteriorly, or posteriorly, according to circumstances,' which no one but their discoverer knows; awarded, thirdly, for the discovery and promulgation of the important fact in science, that although the *orifice* in the drum is closed by the magical tympanum, a *hole* nevertheless remains." On the margin of the medal, "Instalment of justice"—"Better late than never."

It suits Mr. Yearsley's purpose to take every opportunity to couple his name with mine, by writing about me; but I am not one of those who think that it is well to allow an insinuation against a man's honour to be passed over. Honour is too noble and precious a boon to be permitted to be sneered away thus. Further, as a teacher of Aural Surgery, I will not hesitate to say, that I know the use of the cotton-wool is often attended with danger to the patient's life. If Mr. Yearsley desires it, I will give him formaliy the name of a Physician who consulted me with symptoms of inflammation of the dura-mater, from having the cotton-wool pushed into the meatus by Mr. Yearsley's own hands. Common sense should tell every man that a foreign body of the kind in question, especially when soaked with discharge, must act as an irritant at the bottom of the meatus, and with nothing to keep it out of the sensitive tympanic cavity, and that the difference between its pressure and that of the delicate border of vulcanized india rubber of the artificial drum, which rests against the cartilaginous circle of the old organ, must at once be apparent.

And now in conclusion, Sir, allow me to make a general statement bearing on the subject of Aural Surgery.

I confess that when I see Mr. Yearsley's advertisement of his patented Artificial Tympanum; when I see the enclosed advertisement (a) of Mr. Harvey's Ear Infirmary, by a fellow of the College too, almost daily in the *Times*, rivalling as near as he dare, the advertisements of Drs. Hoghton and Colston; when I see the tonsils of patients suffering from no other disease than debility of the nervous apparatus of the ear, recklessly excited; when I find the Eustachian tubes injected by operation in every case of deafness, and to the great detriment of the patient, and that this totally indefensible proceeding is universal among Aural Surgeons in Paris and with one in Vienna, I confess I feel the subject of Aural Surgery,

(a) "Diseases of the Ear.—Royal Dispensary for Diseases of the Ear, Dean-street, Soho-square. Established 1816. President—The Duke of Buccleuch, K.G. Treasurer—John Mastermau, Esq., M.P. Surgeon—William Harvey, Esq., F.R.C.S. This Institution is open Tuesdays and Fridays to the indigent afflicted with deafness, noises in the head and ears, and diseases of the throat. The public are earnestly entreated for assistance to enable the Institution to afford the requirements for the increasing number of applicants. Subscriptions will be thankfully received by Messrs. Mastermau and Co.; and at the Dispensary, by H. Smith, Secretary."

which I have laboured long and hard to uplift, is being ruthlessly dragged down; and I do not scruple to say that the evil must be met with the keenest weapons that human skill can devise. Thomas Hood felt that it was useless to argue in similar cases, and the following satirical lines in reference to the proceedings I have particularised are as applicable now as they were when he wrote them. His words, put into the mouth of a quack vendor of car-trumpets, are racy, and to the point:—

"You may go to surgical chaps, if you please,
Who will blow up your tubes like copper flues,
Or cut your tonsils right away
As you'd shell out your almonds for Christmas Day;
And after all a matter of doubt,
Whether you ever would hear the shout,
Of the little blackguards that bawl about,
'There you go with your tonsils out!'"

It may be said that I am not consulting the dignity of my Profession in quoting these lines. I reply, that I consult and advance the dignity and honour of my Profession by using every means within my reach which I think shall best serve to advance what is high and right, and put a stop to what is low and wrong. There are men to whom the pungent arrows of satire are absolutely requisite; they are dead to milder, more reasonable, more Christian-like warnings. To begin with Mr. Yearsley. If "his hand upon his heart" means something, and he really wishes me to give him an opportunity of explaining publicly a well-authenticated circumstance or two bearing upon his practice and the dignity of the Profession that have come to my knowledge, I hereby promise not to deny him, I am, &c. Joseph Toynbee.

Savile-row, Dec. 8, 1857.

CASE OF POISONING BY CHLOROFORM TAKEN INTERNALLY.

[To the Editor of the Medical Times and Gazette.]

Sir,—In the case I am about to relate, the patient was a lady aged 22, of a dark complexion, and sanguine temperament, very excitable. Three weeks previously to joining the vessel she had suffered from a miscarriage, and at the commencement of the voyage had a severe attack of flooding: during the earlier part of the voyage she had three fits which I considered epileptic, but she had been free from them for a month when she took the chloroform. Her heart was healthy.

At ten p.m., March 24, 1857, I was called to the patient, who had swallowed nearly half an ounce of pure chloroform. Not five minutes had elapsed from the time of her taking the drug before I was with her.

I found her generally convulsed, totally insensible, the pupils dilated, the jaw clenched, her face was slightly flushed, the pulse full and rather oppressed, and she foamed at the mouth. I first placed her in a recumbent position, where she could obtain plenty of fresh air, sending at the same time for brandy and water. I then used the stomach pump with the brandy and water; almost directly she became less convulsed, more sensible, and vomited; all the ejected matter smelling strongly of chloroform. I then gave brandy and water in small quantities every two or three minutes; applying ammonia to the nostrils, and cold dash to the face: at 10·20 p.m. she was sensible, the convulsions had entirely ceased, and the pulse was regular and fairly full. I ordered the continued administration of the brandy and water. Whilst gone on the poop to report the case to the Captain and allay uneasiness, I was again called in haste; and found the patient apparently in extremis: the body convulsed, covered with a cold clammy sweat, and the pulse scarcely perceptible; at one moment slow and laboured, every third beat prolonged; at the next, small, quick, and fluttering, and then a prolonged stop. I continued the brandy and water, and cold dash, ammonia to the nostrils, and friction over the heart: and she rallied. During the night she had several relapses, each less severe, and by six a.m. I considered her sufficiently recovered to permit of my leaving her, having ordered the occasional administration of brandy and water and a small quantity of coffee. At nine a.m. she had a bad relapse, in consequence of having taken a large cup of hot coffee; but by ten a.m. she was much improved, quite sensible, the pulse still weak, and occasionally intermittent: I ordered her sago and port wine, and gave a mixture of ammonia and camphor; after which she continued steadily improving; and on Friday, March the 27th, 1857, she was up and walking about, her pulse regular and equal. The patient also suffered from slight pharyngeal and gastric irritation, which was hardly sufficient to be worthy of mention.

Henry Dacre Dean, M.R.C.S. L.S.A.
Late Surgeon on board the Australian Auxiliary Screw Clipper Ship, Indomitable.
1, Queen's Terrace, Windsor, Berks.

ON THE MARSHALL-HALL TREATMENT OF APNŒA FROM NARCOTISM.

[To the Editor of the Medical Times and Gazette.]

Sir,—In your observations upon the case of the late Mr. Stafford, in the leading article of your valuable Journal of Saturday last, I find the following:—

"In a letter to Mr. Rynd, Dr. Griffin gives some further details as to the state of narcotism, and the energetic efforts made to restore animation: he says, 'After walking him about till it was no longer possible to do so, and giving him coffee, brandy, ammonia, and other stimulants, he became so bad that he lost all consciousness and all power of swallowing, and I was able to rouse him to a kind of partial consciousness only by dint of the most powerful bastinadoing with flat deal sticks, a quarter of an inch thick, on the soles of the feet. . . .

"'This painful process lasted from half-past eight in the morning until half-past six in the afternoon, being all the while so severe as to make us apprehend severe injury to his feet, which seemed in a dreadful state, though there evidently was no alternative; for we tried the same application to the hands and other parts, but quite in vain. At one time the respirations fell to about six in the minute—the pulse 140, almost imperceptible; the limbs cold, and the breathing, even at these long intervals, barely sufficient to make the elevation of the chest visible, notwithstanding an amount of severe slapping on the feet that made such a remedy in such circumstances appear quite cruel and unfeeling.'"—Vide p. 554, *Med. Gazette*, Nov. 28, 1857.

In connexion with the important subject of apnœa from narcotic drugs, I shall be glad if you will permit me to make a second extract, and this time from the valuable and instructive book "On Drowning," of my friend, the late Dr. Marshall Hall.

The chapter is short but most interesting, and it is headed on "Narcotic Poisoning." After speaking of the means to be used for inducing mechanical vomiting in the absence of the stomach pump, he continues: "But now let us suppose that the narcotism is too deep for the success of this manœuvre,—that the second case is before us. Then our hope consists in continuing respiratory movements until the poison is eliminated from the blood and the general system. In one word, our hope is in prone and postural respiration, such as I have recommended it for apnœa."

"I suppose that volition has ceased, and that the patient can no longer be made to move or walk about; that all good physiological respiration has ceased, or is about to cease; then one hope still remains—postural respiration—and the other measures comprised in the treatment of apnœa; and I need not say how long and perseveringly this method should be continued."

In a case reported by Mr. Blades, of Tattershall, it was continued for four hours and a half and with complete success. I need only add, that had the energetic efforts of the medical attendants in the case before us failed in warding off the threatening apnœa, "one hope still remained, postural respiration." I am, &c.

Frederick Wildbore, F.R.C.S.

Brighton, Nov. 30th.

MEDICAL ETHICS AND ABORTION.

[To the Editor of the Medical Times and Gazette.]

Sir,—Your correspondent, "LL.D. Hiberniensis," has given me credit for both ingenuity and facetiousness; and as these are qualities to which I previously had little pretensions, I beg to return thanks for the honour he has done me. I do

this the more readily, as I am not aware that he has laid me under any other obligation; for neither has he answered the question which my former letter proposed, nor is his reply characterised by candour or courtesy. But as I am neither inclined to be captious nor critical, I shall address myself at once to the question at issue.

I.—The question I proposed, or meant to propose, in my former letter was this, Whether in a case of abortion, in which there is no evidence of criminality, it is the duty of the Medical attendant to divulge the secret of a woman's moral guilt to her relatives. In the case to which I then alluded I had satisfied myself of this want of evidence. I was at the time, and am still inclined to believe, that there was no criminality involved, in so far as an attempt to procure abortion was concerned. I came to this conclusion chiefly on the following grounds:—

1. The miscarriage took place at an early period of pregnancy, when abortives (so called) are almost, if not altogether, powerless to produce abortion.

2. It took place, as nearly as could be calculated, at a time corresponding to a menstrual period; and

3. At that particular period (the third month) at which abortion from natural causes is most likely to occur.

4. The purgative action of the medicine employed (which had been mild throughout) had entirely ceased for about twenty-four hours before abortion took place.

It is quite possible, I admit, that the medicine may have been administered with a criminal intent; but the evidence is also strongly against such a supposition. Thus far there is no evidence of criminality, such as the law demands. The only evidence is of moral guilt, and the questions naturally arise, Is it our duty to make this guilt known? and, Will the exposure of a woman's shame act beneficially on herself and on society? There is, alas! on every side of us an amount of moral guilt as distinguished from criminality, which is truly appalling. I admit—I deplore this; but do I not overstep my duty, both as a Physician and as a member of society, when I in any way lend my aid to publish abroad such guilt in an individual case, of which the laws of my country refuse to take cognizance, and the punishment of which is in higher than human hands? The only proper motive I can have for such conduct is, a desire to bring the offender into a court of justice. Now, if I cannot accomplish this (and that I cannot, in relation to moral in contradistinction to criminal guilt, any one acquainted with the rudiments of jurisprudence will admit), my conduct cannot be justified; for I make an accusation in which I am at the same time the accuser and the only witness, and to which the accused has no opportunity of pleading "not guilty."

II.—My angry instructor is no doubt a lawyer; and as, in addition to those qualities which he has discovered in my character, I sometimes get credit for modesty, will he believe that it pains me exceedingly to be obliged to correct some legal errors into which our "LL.D."—bless the mark!—has fallen? He says:

1. "Her guilt is not moral guilt alone, but actual legal crime. She is an offender by having concealed the birth of her child, subject, under the laws of her country, to the punishment of two years' hard labour," etc. This statement I altogether deny. It is no offence, according to English law, to conceal the birth of an abortion. When a child has only reached the third, fourth, or fifth month of intra-uterine life, and is expelled from the uterus by natural causes, a woman is not held guilty of any legal crime where the birth of such a child is concealed. At any rate, it has never been so held by our judges. Again he says:

2. "If the unfortunate patient should have committed the crime we have mentioned," *videlicet*, procuring abortion, "why, in the name of common justice, should she escape?" Now there is this difference between law and justice, that in such a case the "unfortunate patient" would most probably escape; for such is the anomalous state of the law on the subject, that it is a disputed point whether a woman can be tried for abortion, procured or attempted on herself.

I will not, Mr. Editor, yield to any one in endeavouring, in my humble sphere, to promote the cause of public and private morals. I am a young man, of so little experience in the world that I did not believe an honest attempt to discover my duty to the suffering and to society could be made the substance of groundless insinuations of selfishness or dishonesty. If I have been disappointed, I have at least learned a lesson which may not be useless to me in after-life. Before taking leave of my newly found friend, I leave with him the following, which I hope he will translate for his own special benefit:—"Risu inepto res ineptior nulla est." With many apologies for having occupied so much of your space,

I am, &c. M.D. Hiberniensis.

Co. Derry, November 24, 1857.

DEATH OF INFANTS FROM OVER-FEEDING.

[To the Editor of the Medical Times and Gazette.]

Sir,—"The Borough Coroner (Brighton) held an inquest on Thursday evening on the body of the infant daughter of Mrs. Burgess, 108, Glo'ster-lane. The child, who was three months old, had been poorly with a cold for several days, and on Wednesday evening displayed some alarming symptoms, which induced the father to go for Mr. Tuke, the Surgeon. Some mistake in the address delayed Mr. Tuke on his way, and Mr. Verrall was sent for; but before he arrived the child was dead. Mr. Verrall ascertained that, in addition to the breast, three cups of arrow-root and some milk-and-water had been given to the child, and he attributed death to the fact of the stomach being unable to relieve itself from this mass. Verdict:—'Died of Natural Causes.'" — *Brighton Herald*, December 5.

While ignorance prevails to such a lamentable extent on the subject of feeding infants, no wonder that such cases are of frequent occurrence. Doubtless many more would transpire if the friends of these little victims of mismanagement were not so disposed to welcome the impression that such deaths occur from natural causes. However revolting the idea of a public inquiry may be to the private griefs of relatives and friends, it is a duty they owe to society to seek a proper investigation into the cause of death, when the shadow of a doubt rests upon it.

Under such circumstances, if Coroners, in summing up the evidence, would remark upon the great criminality of ignorant treatment in these matters, the jury would feel it their duty (instead of returning a verdict such as we have above recorded) to state their belief that "death was attributable to the reprehensible carelessness or ignorance of the attendant," as the case might be.

It cannot be doubted that, if such a practice were conscientiously adopted by coroners and jurymen, it would be one means of averting the frequent recurrence of such lamentable catastrophes. I am, &c. M. A. B.

THE IMPORTANCE OF CORRECT AFTER-TREATMENT IN CASES IN WHICH THE KNEE-JOINT HAS BEEN EXCISED.

[To the Editor of the Medical Times and Gazette.]

Sir,—In the number of your admirable Journal for December 5, among Hospital Notes, is recorded a case in which "amputation after excision of the knee-joint," was resorted to by Mr. Cooper Foster at Guy's Hospital. It would appear that such a course was demanded owing to the difficulty that arose of keeping the cut extremities of the bones in apposition, or in other words, to the inefficiency of subsequent treatment. For about three weeks the limb "seemed to be doing fairly," but "during dressing and changes of splints, however, it was displaced, and no efforts to put it right were again successful."

In January 24 of the present year, I described at some length, and with reference to woodcuts, the various steps to be observed in placing the limb upon the splint represented.

A very considerable acquaintance with the use of this splint, especially in the wards of King's College Hospital, and in my own practice, induces me again to bring forward the desirableness of its more frequent adoption. With its proper adaptation many evils are avoided, and the happiest results obtained. When once the limb is firmly packed, and the bones properly adjusted, there is no need to remove the splint till the patient is transferred to crutches. The dressings can be changed as frequently as necessary without causing the least disturbance.

I have now frequently pointed out the errors resulting from faulty management of the limb. Periostitis, ostitis, and their

consecutive evils have arisen on many occasions entirely from inappropriate treatment; while I can trace even more disastrous consequences to the same source.

I could bring forward many instances to prove the correctness of my statements, but am unwilling to trespass further upon your valuable space.

It is very sad to find an operation of value, and of immense benefit to a very large class of patients, falling into discredit by a want of due appreciation and care in its subsequent management; and therefore it is, with all due deference, that I take the opportunity of calling more general attention to a plan of treatment which appears to possess every advantage to secure success. I am, &c.

P. C. Price.

7, Green-street, Grosvenor-square, Dec. 6.

REPORTS OF SOCIETIES.

HARVEIAN SOCIETY OF LONDON.

Dec. 3, 1857.

Dr. Graily Hewitt read a paper

ON COAGULA FORMED IN THE VEINS DURING THE PUERPERAL STATE,

AND THEIR OCCASIONAL TRANSPORTATION INTO THE PULMONARY ARTERY.

The painfully sudden death of a lady, a member of the late royal family of France, which according to the accounts given in the public prints was caused by the passage of a clot of blood into the pulmonary artery, had been, the author remarked, the subject of much interest. He proposed to call the attention of the Society to some observations suggested by the contemplation of the case in question.

The various morbid appearances presented by the veins and their contents in cases described as "phlebitis," have been always objects of much interest, and up to within a very recent period were taken as evidence of the existence of inflammatory action in those vessels. The author considered that the researches of Virchow conclusively proved that the appearances in question were due to the formation of coagula in the veins, and the subsequent transformations through which these coagula had passed. According to the views of Virchow, the study of the changes spoken of as phlebitis, was in reality the study of the "thrombus," as the coagulum is termed, and of its metamorphoses.

In applying these views to the consideration of those cases of diseases of the veins which are apt to occur after childbirth, and taking with Virchow the starting point to be the formation of the coagulum, it was necessary to inquire, what are the circumstances which may lead to, or favour the formation of coagula in the veins during the puerperal state?—Amongst these were enumerated:—

1. The large amount of fibrin in the blood both positively and relatively during pregnancy, a condition predisposing to coagulation; and possibly also certain other morbid conditions of this fluid, as uræmia, etc.

2. The mechanical effects of the presence of the uterine tumour, which leading to congestion of certain parts,—the vagina, rectum, lower extremities, etc.—might favour coagulation; also, the impediment to the descent of the diaphragm leading to distension of the right heart, and other parts of the venous system.

3. Pressure, unusual in amount or duration, on the large venous trunks in the abdomen, produced by the head of the fœtus in its passage into the pelvis; the head being too large, or the passage contracted.

4. Deficient contraction of the uterus, and of the large venous plexuses situated near it (Virchow), after delivery.

5. The most important, perhaps,—the presence of the "physiological coagula," as they may be termed, which close up the uterine veins at the point of attachment of the placenta, and which must extend a variable distance, and have a variable size, according to the degree of uterine contraction.

6. The morbid conditions of the blood liable to be produced after delivery, owing to the occurrence of hæmorrhages and other causes.

A description was then given of the morbid appearances usually observed in the veins after childbirth. Affections of the veins generally occurred in cases where some of the causes just alluded to as leading to coagulation had been present. In most of these cases the veins first affected were those leading from the uterus and ovaries; the coagulation begins in the veins of these parts, and travels onwards towards the heart. The coagulum always terminates, according to Virchow (whose description is in conformity with those of Dr. Robert Lee and others on this point) in a rounded extremity, which projects a little beyond the next entering vessel, and by further deposition of fibrin the clot extends. The coagulum also travels backwards, occluding after a time the veins which enter an already blocked-up trunk. The iliac, femoral, and other veins of one or both sides may thus become occluded, by a coagulum extending from the uterine veins of the same side, producing at this stage the disease called "phlegmasia alba dolens." The "physiological" coagula may thus give rise to coagula of a pathological character, other circumstances favouring the production of the latter being present; or, certain states of the uterine surface following delivery may occasion a like issue of the case. The clot, once formed, undergoes two kinds of change. It shrinks, becomes decolorigiæ, adherent, and with the vein is reduced to a cord-like substance (adhesive phlebitis); or it softens, breaks down, and the result is the formation of a fluid in many respects resembling pus (suppurative phlebitis). The outer non-softened portions of the clot in the latter case remain as false membranes adhesive to the normal wall. The attractions of the veins to the puerperal state are only peculiar in respect of their causes: the coagula once formed, are liable to the same kinds of transformation as in other cases. The observations of Virchow respecting the constant presence of the "continued coagulum" are of especial interest in relation to the occasional passage of portions of altered coagula into the pulmonary artery. This continued portion projecting into the still patent vessel, undergoes, but more rapidly under certain circumstances than the other parts, the "thrombus metamorphosis." It becomes adherent to one side of the vessel, and the projecting part may, at a certain stage of its metamorphosis, be broken off and carried away by the blood-current into the pulmonary artery. Death more or less sudden, and attended, according to Virchow, with symptoms of a peculiar asphyxia, followed the passage of these altered coagula into this vessel or its branches. Dr. Simpson has collected nine cases in which death, more or less suddenly, occurred a few days after delivery, apparently brought about by the obstruction of the pulmonary artery, by transformed coagula introduced from the veins. Probably death more often occurs from this cause than is generally imagined, the cause being overlooked. Lastly, the author was of opinion that the pulmonary artery might be occluded by clots, liable to be formed in puerperal women reduced by hæmorrhage, etc., these coagula not having existed as such for a sufficient time to have undergone the transformation previously alluded to, and not having been formed quite in the same way. These clots, at first perhaps small, would increase rapidly by further accretion of fibrin around them, and forcibly obstruct the pulmonary arteries to such a degree as to produce death.

Drs. Priestley, Sanderson, Richardson, and Ranke joined in the discussion which followed the reading of the paper.

WESTERN MEDICAL AND SURGICAL SOCIETY.

Nov. 20, 1857.

Wm. Martyn, Esq., V.P., in the chair.

Dr. Cahill read a paper on

THE EVILS RESULTING FROM THE NON-MERCURIAL PLAN OF TREATMENT IN SYPHILIS.

He commenced by narrating a number of cases in which the constitutional effects of syphilis had been very severe, and had extended in spite of treatment through many years, in all of which the early stage of the disease had not been attacked by mercury. After detailing these very carefully he entered into the history of this plan of treatment, remarking that most of the Irish surgeons who had adopted it have since changed their opinions respecting it. He maintained that the severest and worst forms of constitutional syphilis occur when no mer-

cury whatever has been given for the primary disease, and that the notion that the severe cases of secondary diseasc arc mainly due to the mercury administered is not founded in fact. Mercury, to be of use, must be persevered in for at least six weeks, and to produce its good effects, need not be given lavishly or recklessly; if attention is not paid to this fact no permanent effect is produced, and other forms of the disease, as secondary or tertiary, are apt to follow immediately after. He recommended the use of the bichloride in doses of one-twelfth to a quarter of a grain, together with the inunction of the strong mercurial ointment, until the gums showed that the system was affected by the mercury. The bichloride is borne better than any other form of mercury, and can be continued with safety longer than any other mercurial preparation, not only in these cases, but even scrofulous diseases, in which its use is advisable; hence its peculiar value. Iodide of potassium, given with iodine, is the next remedy to be relied upon, though it is chiefly valuable in secondary and tertiary affections of the periosteum. In tertiary symptoms the iodide is our sheet anchor, and mercury should never be given in such cases to the extent of producing its specific effects; should a mercurial be required, the hyd. c. cretâ is to be recommended in conjunction with the iodide of potassium. Iron, arsenic and mineral acids, under certain circumstances are useful, especially after mercury has been fairly tried; these, with the ordinary means of restoring health, as He then alluded to the difficulty of distinguishing primary chancre and the means employed by inoculation, and the peculiar hardness of the true Hunterian chancre, good food, pure air, and rest, will generally promote a cure. and to the chance there was of a chancre in the urethra being overlooked, and to other sources of error as to the curability of syphilis without mercury. He concluded with the following observations:—1. That the severest and most prolonged forms of the disease have arisen where no mercury has been given for the primary or early secondary affection. 2. That as no symptoms, identical with those of constitutional syphylis, are produced by mercury, the notion that mercury is a causc of constitutional syphilis is founded in error. 3. That the administration of mercury may be so regulated as to preclude any of its severe effects; and supposing any are produced, it is manifest that they would be less severe than those caused by constitutional syphilis. 4. That the constitutional effects of mercury should be avoided in tertiary syphilis. 5. That the supposed successful treatment of syphilis without mercury is founded on erroneous diagnosis, or the cases have occurred in individuals already possessed, or the subjects have been of that class who seem to enjoy immunity from the worst part of the complaint.

Dr. Barclay then introduced M. Groux, of Hamburg, to the Society, whose remarkable deficiency of the sternum, thereby exposing the pulsations of the right side of the heart, is already known to the profession.

The Society then adjourned.

NORTH LONDON MEDICAL SOCIETY.

Dr. Reynolds, at the November meeting of this Society, read a paper, of which the following is an abstract:—

ON THE PATHOLOGY OF CONVULSIONS, WITH ESPECIAL REFERENCE TO THOSE OF CHILDREN.

§ I. All vital actions are accompanied by, and depend upon physical changes in the living organism.

There need not be any physical "lesion," but there must be physical change in the interstitial processes of nutrition and disintegration; and to these the vital processes are "correlated."

§ II. Modifications of vital actions depend upon modified physical conditions. Some "symptoms of disease" are modifications of vital actions, and there are two general modes in which they are, or may be, related to the nutrition-change.

A. Negative symptoms, *i.e.* those which consist in the negation of vital properties, such as paralysis, anæsthesia, etc., may depend *directly* on a "solution of continuity," or some other distinct organic disease; but

B. Positive symptoms, *i.e.* those which consist in the alteration or excess of vital actions, cannot depend directly upon such textural conditions, but must have for their immediate cause some modification of the minute, interstitial processes.

§ III. Convulsions being essentially modifications (not negations) of vital actions, must depend directly upon modifications of physical conditions.

We may not discover any "lesion" post-mortem, but we are warranted in the conclusion that nutrition is affected.

§ IV. Convulsions depend directly upon modified nutritive conditions in the nervous centres.

§ V. The immediate or proximate cause of convulsions is the same in all instances, when the convulsions are the same; and whatever lesions may be discovered in the nervous centres, or elsewhere, they are not the *proximate* causes of convulsions, for they differ in locality and kind, and bear no constant proportion to the symptom in question.

§ VI. The proximate cause of convulsion is an abnormal increase in the nutrition-changes of the nervous centres, an increase in relation to time, or to mobility.

§ VII. The remote causes of convulsions are such as induce an abnormal increase in the nutrition-changes of the nervous centres.

There are three general modes in which the remote causes operate.

A. The nervous centres may be involved in a general nutrition-change; *e.g.* at certain periods of life, such as dentition, puberty, pregnancy; in some general diseases, specific fevers, Bright's disease, scrofulosis, tuberculosis, rickets, etc.

B. The nervous centres may be the seat of special disturbance owing to organic lesion; *e.g.* tumours, spiculæ of bone, etc.

C. Eccentric irritations may affect their nutrition through the afferent nerves.

§ VIII. The diagnosis required in a case of convulsions is that of the *remote* cause; and the first step is to ascertain to which of the above three categories the case belongs.

In children the diagnosis will turn upon a consideration of the following points:—

A. The duration of the paroxysm.

B. The frequency of its repetition.

C. Its local or general distribution, and upon

D. Interparoxysmal symptoms.

The last are of the greatest value, and the positive or negative character of the symptom, together with local distribution, afford no actual assistance in the process.

§ IX. The treatment of convulsions is guided by a diagnosis of the remote causes upon which the convulsions depend; and will consist in the removal or palliation of eccentric irritation, the improvement of the general nutrition, and the treatment of local disease.

PARLIAMENTARY INTELLIGENCE.

HOUSE OF COMMONS.

Monday, December 7.

MEDICAL CHARITIES (IRELAND).

Mr. H. Herbert obtained leave to bring in a Bill to amend the laws in force for the relief of the destitute poor in Ireland, and to amend an Act of the 15th year of Her Majesty providing for the better distribution, support, and management of Medical charities in Ireland.

The Bill was brought in and read a first time.

OBITUARY.

DR. JOHN M'LOUGHLIN.

(From the Oregon Observer.)

In Oregon City, September 3rd, 1857, Dr. John M'Loughlin, aged seventy-three.

The death of our venerable and distinguished fellow-citizen, whose name and history are so identified with that of this city and territory, deserves more than a passing notice.

He was born and educated in Canada, and soon after he obtained his degree he entered the service of the North-west Company as a physician. Becoming a partner, he was placed in charge of Fort William, at that time the principal depôt of the Company; during his administration, the fiercest competition grew up between that and the Hudson Bay Company, which became so sharp and desperate, that hostilities and battles took place between their mutual adherents, resulting in the loss of many lives and the entire destruction of the fort. After this, the two companies were merged, and Dr. M'Loughlin was placed in sole charge of the possessions and trade of the Hudson's Bay Company west of the Rocky Mountains. He established the principal post at Fort Vancouver, and continued in charge there till 1844, when, leaving the service of the Company, he removed to this city, having selected this as his claim in 1829, and from that time made improvements thereon. Here he remained until his death.

He was a man of large liberality in all the departments of life, as was manifested by his lavish generosity to a large circle of relatives, his constant readiness to relieve distress and assist the needy, and his prompt aid in every public undertaking. Though warmly attached to and a devout believer in the doctrines of the Roman Church, he was so truly catholic that he cheerfully assisted other denominations, and was especially liberal in his donations to institutions of learning, even though under the exclusive management of those of a different creed. To the early emigrants, his succour was free and abundant. He literally "fed the hungry and clothed the naked." His position at the head of a powerful corporation, his long experience among the Indian tribes, his influence over them based upon their knowledge of his strict integrity, his courage and his firmness under all circumstances, gave him great facilities as the pioneer and patron of civilization in Oregon, which he promptly improved. His conduct in this respect was the prime cause of difference between him and his employers; but, feeling that he had done his duty in assisting to develop the immense resources of this Pacific wilderness, rather than in forcing it, against the indications of Providence, to remain as the hunting-ground of trappers and savages, he preferred to abandon his lucrative office and his allegiance, and, as an American citizen, employ his great energies, his wealth and his experience in building up a new republic. It is to be regretted that his efforts were not fairly and honourably recognised, but that the legislation of Congress unrighteously selected him as a victim, and maliciously sacrificed his interests, apparently for no other reason than because he was of foreign birth and had been a chief factor of the Hudson's Bay Company, forgetting that prior to this action, he had taken the oath of fidelity as an American citizen, and had used all the means which he honourably could, while in office, to advance American interests. This wrong inflicted upon Dr. M'Loughlin afflicted and grieved him, and embittered the last years of his life, not so much on account of the pecuniary loss it caused him, considerable as it was, as because of the accusation and false charges with which it was accompanied, the ingratitude it manifested, and the necessity it imposed upon him to appeal to a nation whose boast it is that it is free and generous and magnanimous, to restore to him rights of which, while standing on the brink of the grave, the aged and white-haired pioneer had been so cruelly robbed. Alas! that justice was so slow that he died without the satisfaction of knowing that restitution was made, and his claims recognised, except so far as was manifested by the honourable and just action of the Legislative Assembly of Oregon upon the subject.

It is not pretended that he was without faults. These, however, were rather the result of the circumstances of his life, and were less the offspring of the heart than of the head. Prompt to resent injuries imagined or fancied, his temper was short-lived, and died with the setting sun. Accustomed to govern men and communities during a long life, he did not readily brook control, and perhaps was too careless of the opinions and judgment of those whom he considered as inferior to him.

But his failings are buried with him, and will be no more remembered, while the community that was assisted and blessed by his energetic efforts, and those who knew him, will cherish the memory of his virtues, his lofty and stern integrity, his wide-spread philanthropy, his generous donations in behalf of religion and education, his zeal for moral progress, and his ardent patriotism.

And though we miss here for ever his commanding presence, blending the simplicity of the pilgrim with the genial kindness of the patriarch, and the dignity of a king, we would—

> "No farther seek his merits to disclose,
> Or draw his frailties from their dread abode:
> (There they alike in trembling hopes repose)
> The bosom of his Father and his God."

MEDICAL NEWS.

Royal College of Surgeons.—The following gentlemen, having undergone the necessary examinations for the diploma, were admitted members of the College at the meeting of the Court of Examiners on the 4th inst.:—

Angus, James Acworth, Newcastle.
Bower, William Eliot, Nantwich, Cheshire.
Cooper, Vincent Morton, Bow-road.
Croucher, Alexander Richard, Shadwell.
Everest, George John, Cork.
Fleury, Charles Robert, Passage, county Waterford.
Granger, William S. Bradford, Yeovil, Somersetshire.
Hillman, William, Army.
Holmes, John, Chesterfield.
Howard, John Simpson, Madras.
Land, John Fullaston, Patrington, near Hull.
Leet, Charles Henry, Army.
Pemberton, John M'Leod, H.E.I.C.S.

At the same meeting of the Court Mr. Edward Higgon Evans, of Plymouth Hospital, passed his examination for naval surgeon; this gentleman had previously been admitted a member of the College, his diploma bearing date January 23, 1851.

Apothecaries' Hall.—Names of gentlemen who passed their examination in the Science and Practice of Medicine, and received Certificates to Practise, on Dec. 3:—

Dow, John, 33, St. Martin's-le-Grand.
May, John, Gerranarworthal.
Tunmer, James Robert, Ipswich.

DEATHS.

Anderson.—At Houghton-le-Spring, on the 27th ult., aged 48, Ralph R. Anderson, M.R.C.S., Eng., 1834.

Farish.—At the County Asylum, Norwich, James Farish, aged 24.

Hooper.—At Notting-hill, Charles Hooper, formerly of Kempsey, Worcestershire, aged 57.

Woodward.—Before Delhi, Aug. 31st, Assistant-Surgeon T. H. Woodward, of the Bengal Presidency, aged 25.

Royal Institution of Great Britain. — At the General Monthly Meeting, last Monday, Charles Brooke, Esq., F.R.S., and Dr. Neil Arnott, F.R.S., were admitted members. The Secretary reported that the following arrangements had been made for the lectures before Easter, 1858:—Six lectures on Statie Electricity (adapted to a juvenile auditory), by Michael Faraday, Esq., D.C.L., F.R.S., etc., Fullerian Professor of Chemistry, R.I. Twelve lectures on the Principles of Biology, by Thomas Henry Huxley, Esq., F.R.S., Fullerian Professor of Physiology, R.I. Ten lectures on Heat, by John Tyndall, Esq., F.R.S., Professor of Natural Philosophy, R.I. Ten lectures on the Chemistry of the Elements which circulate in Nature, by Charles L. Bloxam, Esq., Professor of Practical Chemistry, King's College, London.

Royal Medical Benevolent College.—A general meeting of the Governors of this Institution took place on Friday, the 4th inst., at the office, in Soho-square, Henry Pownall, Esq., in the chair, when the following resolutions were passed:—1. Moved by Mr. Propert, and seconded by Mr. Ray, That the following words be substituted for the last paragraph but one in the 15th Bye-law: "A Governor who has one vote, or more, may at all elections use such vote or votes for as many candidates as there are vacancies to be filled up, and those votes may be divided at pleasure, or accumulated on any one candidate, provided they do not exceed the number to which the Governor is entitled according to the vacancies declared."—2. Moved by Mr. Charles Hogg, and seconded by Mr. Fincham, That the following words be omitted from the 15th Bye-law: "All new subscriptions must

be paid one month before the election, in order to entitle Governors to vote." 3. Moved by Sir John Forbes, and seconded by Mr. Webb, That the following words be added to the 13th Bye-law: "After the election of a pensioner and before admission, a certificate must be given by two householders that, in case of the decease of the pensioner, they, or either of them, will be bound to bury the deceased, or guarantee the burial expenses."—4. Moved by Mr. Jonson, and seconded by Major Milles, That the following words be added to the 16th Bye-law: "Each pensioner must take up his or her residence within two months after his or her election, unless for reasons approved by the Council, otherwise the election of such pensioner will become void." A vote of thanks to the Chairman was then moved by Mr. Propert, and carried unanimously.

New Process of Making Bread.—Some months ago, a notice appeared of a new process of bread-making, which had been patented by Dr. Dauglish, of Carlisle. The theory has been reduced to practice; and a machine on the new principle is now in operation. According to the ordinary process, fermentation is produced by the action of the yeast upon the particles of starch in the flour, thus liberating minute bubbles of carbonic acid gas which permeate the entire mass of the dough, and make it "rise." The chemical change, however, which here takes place is such that it has been estimated by M. Dumas that in France 17½ per cent. and in England 8½ to 12 per cent. is wasted by the decomposition which takes place in the process of fermentation. In the new process patented by Dr. Dauglish no yeast or baking powder is used, the rising of the dough being effected by water impregnated with carbonic acid gas. The idea of making bread with aërated water is not a new one; a patent was taken out for such a process some years ago, but it was then found that when the flour was mixed with the impregnated water the gas escaped before the bread had time to rise. The novelty of Dr. Dauglish's patent consists in preventing the escape of the gas from the water by subjecting the materials to an outward pressure of carbonic acid gas while the flour is being mixed with carbonated water. The carbonic acid gas is generated in such apparatus as is usually employed by soda-water manufacturers; the gas is pumped into a large reservoir, from which it is forced, as it is required, into a vessel containing water—the absorbing power of water for carbonic acid being very great. The kneading machine is a strong iron retort, fitted with air-tight lids, and provided with revolving prongs in the inside for mixing the dough. In the machine now in operation, this retort is capable of containing 40 stones of flour. Into this are put 20 stones of flour with the requisite amount of salt. A stream of carbonic acid gas is forced into the retort, and a sufficient quantity of carbonated water is admitted and well mixed with the flour and salt; the gas with which the water is impregnated being prevented from escaping by the pressure of the ambient carbonic acid gas. As soon as the flour and water are mixed, a pipe is opened and the loose gas is let out. The consequence of the pressure being taken away from the surface of the paste is, that the gas which was held in solution by the water operates in precisely the same manner as the gas in a bottle of soda-water when the cork is removed, the dough rises and fills the retort, occupying twice as much space as before. The bread is then ready for being worked into loaves—the only operation that will necessitate handling. The rising can be regulated by the pressure of gas; so that, did the strength of the machinery permit, the bread might be made of almost any lightness. The pressure of the gas, and the quantity of water admitted, are regulated by gauges.

Cattle Disease in Africa.—"The disease (*peripneumonia*) passing under the term horse-sickness is an insurmountable obstacle to the introduction of goats, sheep, and horses. It exists in such violence over nearly seven degrees of latitude, that no precaution would be sufficient to save these animals. The horse is so liable to this disease, that only by great care in stabling can it be kept anywhere between 20° and 27° S., during the time between December and April. To this disease the horse is especially exposed, and it is almost always fatal. One attack, however, seems to secure immunity from a second. Cattle, too, are subject to it, but only at intervals of a few, sometimes many, years; but it never makes a clean swoop of the whole cattle of a village, as it would do of a troop of fifty horses. When the flesh of animals that have died of this disease is eaten, it causes a malignant carbuncle, which, when it appears over any important organ, proves rapidly fatal. It is more especially dangerous over the pit of the stomach. The effects of the poison have been experienced by missionaries who had eaten properly cooked food, the flesh of sheep really, but not visibly, affected by the disease. The virus in the flesh of the animal is destroyed neither by boiling nor roasting. This fact, of which we have had innumerable examples, shows the superiority of experiments on a large scale to those of acute and able physiologists and chemists in the laboratory; for a well-known Physician of Paris, after careful investigation, considered that the virus in such cases was completely neutralised by boiling."—*Livingstone's Travels.*

A Frenchman on the Thames Tunnel.—"In the Tunnel, to which you descend by a round hole, some hundred feet in circumference, decorated with bright-coloured paintings, and flanked by a couple of staircases, the necessity of earning a livelihood gives rise to painful industries. When you have entered the double gallery, whose vaults describe three-quarters of a circle, the air becomes thick and chilly; a cold and humid vapour, laden with sepulchral miasms, shuts in the view at twenty paces distance, in spite of the light of a hundred and twenty-six gas burners. It seems as if one would be sure to die, if one spent a couple of hours in the hypogées (that is, under-earths; but what will the Academy say to the word?) which distil water, drop by drop, till it collects in black and slippery puddles. Between each pillar there are shops, kept by quite young girls, thus buried alive. Smiling and pale, they offer you glass articles, enchanted lunettes (kaleidoscopes, perhaps), panoramas of London, lots of small tin ware, and foreign gewgaws. There are puppet-shows, and performances on the accordion, and the serinette in the subterranean passage; in short, they contrive to exist in this dwelling of death. What maladies unknown to the land of sunshine must germinate here! What a capital greenhouse for the production of morbific rarities! But liberty is opposed to the closing of these stalls, a measure in which the solicitude of the government would be doubly justified, in the interest both of the public health and the public morality; for commerce here is only a pretext for something less respectable."—*Les Anglais chez-eux, by Francis Wey, Paris.*

French Medical Students.—The number of Medical students taking out inscriptons for 1857-8 amounts to 901 for the Doctorate, and 126 for the grade of *Officier de santé*—total, 1027. The number of new inscriptions amounts to 158. Last year the total was 1000, of which 126 were new. The following is a comparison of the last eight years:—

1850 . .	1223 inscriptions	429 new	
1851 . .	1300	,,	313 ,,
1852 . .	1437	,,	334 ,,
1853 . .	1055	,,	158 ,,
1854 . .	964	,,	151 ,,
1855 . .	966	,,	180 ,,
1856 . .	1000	,,	126 ,,
1857 . .	1027	,,	158 ,,

Death of a German Hermaphrodite.—The widely-celebrated hermaphrodite John Gottlieb Göttlich, who was baptized as Maria Göttlich, and who had made numerous scientific journeys throughout Europe for the exhibition to scientific persons of his sexual peculiarities, has just died at Ostritz, in Saxony. The Medico-Chirurgical Academy at Dresden is endeavouring to obtain the organs of generation for the Museum.

Glasgow Southern Medical Society. — At the annual meeting of the Society held on the 3rd inst. the following gentlemen were elected office-bearers:—*President*, Mr. David Tindal; *Vice-President*, Mr. Andrew Macfarlane; *Treasurer*, Dr. Robert Parker; *Secretary*, Mr. Bryce Rankin; *Seal-keeper*, Mr. John Burns. *Court Medical.*—Dr. Rowatt (Convener), Dr. James Stewart, Dr. Lonergan, and Dr. James Morton.

Vienna General Hospital.—The following are the names of the chief Medical officers under the new arrangement of this Hospital:—1st Class, with a salary of 1,800 florins—Drs. Moisissovits, V. Viszanik, Karl Haller, and Professor Sigmund. 2nd Class, salary 1500 florins—Professor Hebra, and Drs. Kolisko, Türk, and Ulrich. 3rd Class, salary 1200 florins—Drs. Standhartner, Zsigmondy, and Eisenstein, and Professor Edward Jäger.

THE GLUCOMETER.—This is an instrument introduced by Dr. Garrod for determining the amonnt of sugar in diabetic urine. The principle upon which the glucometer is constructed rests upon the fact that glucose sugar ($C_{12}H_{14}O_{14}$) when boiled with carbonate of potash gives rise to an amber colour, the depth of the tint depending upon the amount of sugar present. The apparatus consists of a standard, a graduated tube of the same calibre as the standard, and an accurately divided minim measure. The standard contains a solution having the exact tint produced by half a grain of diabetic sugar to the fluid ounce: it should be kept from the light when not in actual use.

Method of employing the Glucometer.

1. *Qualitative Analysis.*—Put into a test-tube a small quantity of the urine, and add about an equal bulk of liquor potassæ, Ph. Lond.; heat over a spirit-lamp, and allow the fluid to boil for half a minute. By this operation (Moore's test) we ascertain whether sugar is present; and, by observing the amount of colour, have a guide to the subsequent dilution of the urine, which is often necessary before proceeding with the quantitative analysis, in order to avoid having the graduated tube of inconvenient length.

2. *Quantitative Analysis.*—If the tint in the above experiment be not deeper than an amber red, no dilution will be required before it is examined; if of a dark red, the urine should have about its own bulk of water added to it; if of a reddish brown, three times its bulk; if of a dark brown, seven times, etc. This dilution may be readily effected by means of the graduated tubes, employing about a drachm of the urine for the experiment. Having made the necessary dilution with distilled water, accurately measure in the minim-glass half a drachm (30 minims) of the liquid, and add an equal amount of the solution of carbonate of potash (a), introduce these into a small flask, or large test-tube (b), and wash out the measure with about a drachm-and-a-half of water. Heat to the boiling point, by means of a spirit-lamp, and keep the liquid at that temperature for five minutes. If the contents of the flask be found to have a colour much above that of the standard, water may be added; and when somewhat cool, the whole transferred to the graduated tube, and dilution carefully made until the tint exactly accords with that of the standard. Care should be taken, on each addition of water, to ensure a thorough admixture of the fluid in the tube. All the required data for determining the amount of sugar are now obtained. Suppose a sample of urine when treated with liquor potassæ to give an orange-red colour, and that it has afterwards been increased to four times its original bulk by the addition of three parts of water; again, suppose that the half-drachm employed in the quantitative analysis requires to be further diluted, so as to occupy 6½ drachms before the exact tint of the standard is obtained; such urine would contain 26 grains of sugar per fluid ounce; for the first dilution increases the bulk fourfold, the second 13: therefore four times thirteen, or 52 half-grains, or 26 grains of sugar are present. If a portion of the 24 hours' urine is made use of, and the total quantity measured, the daily elimination of sugar can be readily determined. The method of ascertaining whether the tint of the liquid corresponds exactly with that of the standard, is to hold the tubes side by side, directing them to moderately bright light, such as that of a white cloud, sometimes a thin piece of writing-paper placed behind the tubes enables the identity of tint to be better observed. Lamp or gas light is not well adapted for the experiment. Should the urine contain but very little sugar, some slight alteration in the process may be made. One or two drachms may be heated with but a small quantity of the solution of carbonate of potash, and without the employment of more water than is sufficient to wash out the measure; when the amount of sugar is less than half a grain to the ounce, the glucometer can only give approximate results. The apparatus had been constructed for Dr. Garrod by Messrs. Coxeter.

YELLOW FEVER AT LISBON.—The cases since the commencement of the epidemic until the end of October numbered 7177, the deaths 2215. The general mortality has been 1 in 3·24; the mortality in the five hospitals 1 in 3.

(a) The solution of carbonate of potash is thus prepared:—Dissolve four ounces of carbonate of potash in six fluid ounces of water, and filter.

(b) A small German glass flask, of about an ounce and half capacity, is best suited for the experiment, which can be held over the spirit-lamp by a small holder; if a test-tube be employed, it should not be of less capacity than the flask.

A DOCTOR'S WIFE IN INDIA.—The case of a lady named Moir, who with her two children came home in the Ripon, is deserving of notice from the terrible incidents associated with it. This lady was the wife of a doctor who was shot by the mutineers in a bungalow 600 miles up the country, and he died in her arms. After this she escaped, together with her two children, and in passing through the jungle, where she encountered great hardships, lost one of them, but to her inexpressible joy the child was restored to her on arriving at Calcutta, having been picked up on the road by a gentleman, and by him taken to that city.

SAFE GUNPOWDER.—General Piobert, of the Artillery, a member of the Institute, has made a discovery by which the explosion of gunpowder in magazines may be prevented. It consists simply of mixing the gunpowder with coal dust. When the gunpowder is required for use, it is only necessary to sift it; the coal dust falls through the sieve, and the gunpowder resumes its original qualities. The experiment has been tried on a large scale with complete success. A magazine filled with gunpowder so mixed was set on fire. "No explosion took place," says the *Moniteur de l'Armée*. "The gunpowder burned like other combustible matters, such as pitch or tar, and the fire was extinguished with common pumps."

VITAL STATISTICS OF LONDON.

Week ending Saturday, December 5, 1857.

BIRTHS.

Births of Boys, 938; Girls, 874; Total, 1812.
Average of 10 corresponding weeks, 1847-56, 1504.

DEATHS REGISTERED DURING THE WEEK.

Causes of Death.	In the Week ending Saturday, Dec. 5, 1857. Deaths of Persons. At all Ages.	Under 20 Years of Age.	At 20 and under 40 Years of Age.	At 40 and under 60 Years of Age.	At 60 and under 80 Years of Age.	At 80 Years of Age and Upwards.	Averages of Temperature and Deaths in 10 Weeks.
Mean Temperature	Mean temp. 46°1						41°6
All Causes	1428	665	181	221	282	79	1317·7
Specified Causes	1427	664	181	221	282	79	1313·5
Diseases:—							
1. Zymotic Class	258	207	22	9	12	8	302·8
2. Dropsy, Cancer, and others of uncertain seat	44	5	7	15	17	..	50·0
3. Tubercular Class	220	69	94	50	7	..	194·1
4 Of Brain, Nerves, etc.	141	61	10	20	41	9	132·8
5. Of Heart, etc.	56	8	7	18	20	3	52·7
6. Of Respiratory Organs	415	191	20	68	113	23	318·4
7. Of Digestive Organs	66	22	7	19	15	3	66·5
8. Of Kidneys, etc.	18	4	2	7	4	1	12·5
9. Of Uterus; viz. — Puerperal Disease, etc.	9	1	6	1	1	..	9·3
10. Of Joints, Bones; viz.— Rheumatism, etc.	6	2	..	1	3	..	9·0
11. Of Skin, etc.	3	..	1	1	1	..	2·0
12. Malformations	3	3	..	..	..	..	2·7
13. Debility from Premature Birth, etc.	34	34	..	..	..	..	32·9
14. Atrophy	40	29	..	1	10	..	25·7
15. Age	60	..	..	..	30	30	62·3
16. Sudden	10	4	1	2	3	..	7·2
17. Violence, Privation, etc.	44	24	4	9	5	2	32.6
Causes not specified	1	1	..	..	..	..	4·2

METEOROLOGY.

From Observations at the Greenwich Observatory.

Mean height of barometer	29·858 in.
Mean temperature	46·1
Highest point of thermometer	56·4
Lowest point of thermometer	35 8
Mean dew-point temperature	43·2
General direction of wind	S.W.
Whole amount of rain in the week	0·10
Amount of horizontal movement of air in the week	985 miles

DEATHS IN SUB-DISTRICTS FROM EPIDEMICS.

	Population. 1851.	Measles.	Scarlatina	Hooping-Cough.	Diarrhœa.	Cholera.	Typhus.
West	376,427	3	11	8	4	..	4
North....	490,396	8	11	9	4	..	9
Central ..	393,256	5	5	11	2	1	6
East	485,522	14	8	12	2	.	17
South	616,635	3	9	18	4	1	11
Total..	2,362,236	33	44	58	16	2	47

DEATHS.

	Males.	Females.	Total.
Deaths during the week	682	746	1428
Average of the ten years 1847-56	..	..	1318
Average corrected to increased population	...	..	1450
Corrected average for corresponding week in ten years 1847-56	650·5	667·2	1317·7
Deaths of people above 90	..	..	..
Deaths in 13 General Hospitals	42	23	65

TO CORRESPONDENTS.

A Reformer.—We believe the statement to be correct that Sir John Pakington is the son of a Surgeon, the late Mr. Russell of Worcester. His mother was a Pakiugton, and he succeeded to the estates, the baronetcy, then extinct, having been revived in his favour.

Mr. Holmes Coote's paper on the Process of Repair in Divided Tendons, shall appear in an early number.

Dr. Francis Churchill.—The book has not been received.

Mr. Stokes.—The subject has been fully considered in a recent leading article.

Dr. Morris's letter on the Apnœa of Infants is in type.

Dr. Murchison's letter shall appear next week.

THE ARTIFICIAL TYMPANUM.

TO THE EDITOR OF THE MEDICAL TIMES AND GAZETTE.

SIR,—To my paper on the Artificial Tympanum in the current number of your Journal, page 577, is appended a foot-note, giving a brief resumé of my patients' testimony in favour of the non-closure theory, which you have qualified with the following remarks:

"It is not very clear, however, how far the patients understand the difference between the meatus and the opening in the membraua tympani. If they fill the meatus with cotton, of course they cannot hear; and it is not easy for any person to close an opening in his owu membrana tympani partially.—ED."

Now, Sir, I beg to assure you that every one of my patients using the cottou *does* understand the anatomical differeuce adverted to. It is a most essential point in the teaching how to apply the remedy, to enlighten them on this matter, and a very few simple words are sufficient to impart the necessary knowledge. Another point in the teaching is *not* to fill their ears with cotton, but to show them the proper size and shape of the cotton, and how to introduce it. I admit that "it is not easy for any person to close an opening in his owu membrana tympani partially," whether it be by the vulcanised membrane or the wetted cotton.

Therefore, it appears to me that whilst your comments fail to invalidate the testiuony of my patients, none stronger could be advanced in favour of a careful instruction how to apply the remedy with success.

I am, &c. J. YEARSLEY.

INOCULATION OF QUASSITE IN CHOLERA.

TO THE EDITOR OF THE MEDICAL TIMES AND GAZETTE.

SIR,—I have lately received a letter from a relative at Calcutta, a Surgeon in the East India Company's Service, who tells me that a pamphlet has been published by Dr. J. M. Honigberger, on his mode of curing Asiatic Cholera, the details of which I subjoin. The pamphlet is uuder the consideration of the Professional authorities at Calcutta, but as it may be a long time ere the Medical Profession iu England may hear of Dr. Honigberger's statements, I herewith send you an extract from my friend's letter, in case you have not heard anything about them.

I am, &c. J. J. FURNIVALL, M.D.

Gloucester-road, Seven Sisters-road, Holloway.

Extract from Letter.

"Dr. Honigberger declares he has found a sure and uever-failing mode of curing cholera. His method is to inoculate the patient with a preparation of quassia, which he calls quassite. The method is to dip a lancet into the preparation, and introduce it as we do in ordinary vaccination, or in more severe cases, to make a small incision on any part of the body, and introduce a few drops of the preparation.

"*The Preparation of Quassite.*—To a concentrated aqueous decoction of quassia, is added some fresh prepared lime-water, stirring occasionally during the twenty-four hours, in order to separate the pectine, and other substances. Then strain and evaporate to the consistency of an extract. Some boiling alcohol is added, which takes up the quassite, a brown colouring matter, and some salts. By repeated solutions in hot alcohol, and evaporation, the quassite may be obtained pure, in small and white crystals. I, (Dr. H.) however, often use the impure alcoholic solution of this article, namely, the tincture of quassite. I have found that it acts perfectly in most of the slight cholera cases."

My correspondent adds, "Honigberger is said to have cured every case of cholera brought to his notice."

Mr. Drysdale's letter ou Prostitution shall appear next week.

Mr. Pope.—The report will appear with the other reports of operations for the same quarter.

ASSURANCE FEES.

TO THE EDITOR OF THE MEDICAL TIMES AND GAZETTE.

SIR,—The Metropolitan Life Assurance Society, Princes-street, Bank, E.C., have this day ed a resolutiou to pay a fee to all Medical referees.

Will you oblige me by communicating the above to the Profession? and believe me, Yours, &c. W. C.

December 9.

Critic.—The advertisement of Dr. Horner's book was unfortunately accepted at the Publishing-office, and as six insertions were paid for they must be inserted; but no more will be accepted, nor will any advertisements of Homœopathic works be admitted for the future.

A Student.—We know nothing as to any probable changes in the Government of India, and therefore, at present, cannot answer the questions.

Erratum.—Mr. Beatty's Case of Poisoning, in our last Number, should have been headed, "Poisoning by Battle's Vermin-killer."

Paterfamilias.—The subject will be treated in future Numbers.

Inexpertus, (1.) wishes to obtain a few biliary calculi, but does not send his address. (2.) The activity of the circulation in the extremities can be estimated by the colour beneath the nails. (3.) Early grey hairs would be noticed by the medical examiner of an Insurance Office, but alone they would not enable him to form an opiniou as to longevity.

A BUST OF JENNER.

TO THE EDITOR OF THE MEDICAL TIMES AND GAZETTE.

SIR,—If your Correspondent, who inquires "Where a bust of Dr. Jenner can be obtained," will take the trouble to call upou me any day, between 11 and 2 o'clock, I can probably help him. I am, &c.

J. NEWTON TOMKINS.

8, Russell-place, Fitzroy-square, Dec. 2, 1857.

COMMUNICATIONS have been received from—

Mr. WILDE, Dublin; Mr. TOYNBEE; Mr. WHARTON JONES; Mr. WORDSWORTH; Dr. M'CLINTOCK, Dublin; Dr. MURCHISON; Mr. PROPERT; Dr. E. LEE; Mr. PRICE; Mr. T. BRYANT; Dr. WILKS; Dr. GRIFFIN, Limerick; Mr. HOLMES COOTE; Mr. HUSSEY, Oxford; Mr. HENRY SMITH; Dr. SHAPTER, Exeter; Mr. GAMGEE; Dr. MONCKTON; Dr. VINER; Dr. MORRISS; Mr. BARRON; Dr. FURNIVALL; Mr. MOUNTCASTLE; Dr. DAUGLISH; Dr. COLQUHOUN; SECRETARY, GENERAL BOARD OF HEALTH; Dr. MACFARLAN; Dr. MORRIS; Mr. BEATTY; Mr. MACKENZIE; Mr. COX; Mr. BROWNFIELD; Mr. MITCHELL; Mr. A. CUTHBERT; Mr. H. R. HARRIS; Dr. SUTHERLAND; Mr. TYRRELL; Mr. SUTCLIFFE; Mr. DOBSON; Mr. J. ALLEN; Dr. DIAMOND; Dr. W. OGLE; Mr. YEARSLEY; Mr. M'DERMOT; Mr. POPE; Dr. DEVENISH; Dr. FORBES WINSLOW; Mr. WALTERS; Mr. SANSOM; Mr. CARR.

APPOINTMENTS FOR THE WEEK.

12. *Saturday (this day).*

MEDICAL SOCIETY OF LONDON, 8 p.m.: E. M'Dermot, "On the Influence of Locality on Spasmodic Asthma,"

GUY'S PHYSICAL SOCIETY, 7 p.m.: Mr. Towne, "On Memory in connexion with Physical Conditions,"

Operations at St. Bartholomew's, 1½ p.m.; St. Thomas's, 1 p.m. King's, 2 p.m; Charing Cross, 1 p.m.

14. *Monday.*

JURIDICAL SOCIETY, 8 p.m.: Dr. Forbes Winslow, "On the Legal Doctrine of Responsibility in Cases of Insanity connected with alleged Criminal Acts."

Operations at the Royal Free Hospital, 1 p.m.; Metropolitan Free Hospital, 2 p.m.; Orthopædic Hospital, 3 p.m.

15. *Tuesday.*

PATHOLOGICAL SOCIETY, 8 p.m.

Operations at Guy's, 1 p.m.; Westminster, 2 p.m.

16. *Wednesday.*

HUNTERIAN SOCIETY, 8 p.m.: Dr. Cooke, "On Strumous Disintegration of the Intestines, with Fæcal Extravasation."

Operations at University College Hospital, 2 p.m.; St. Mary's, 1 p.m.; Orthopædic Hospital, 3 p.m.

17. *Thursday.*

MEDICAL SOCIETY OF KING'S COLLEGE, 8 p.m.: Dr. Whitford, "On the Uses and Effects of Alcohol."

Operations at St. George's, 1 p.m.; Middlesex, 12½ p.m.; Central London Ophthalmic, 1 p.m.; London, 1½ p.m.

18. *Friday.*

Operations at the Moorfields Ophthalmic, 10 a.m.; Westminster Ophthalmic, 1½ p.m.; Great Northern, 2½ p.m.

EXPECTED OPERATIONS.

King's College Hospital.—The following operations are expected at this hospital to-day (Saturday), at 2 o'clock:—

Double hare-lip; removal of tumour from face, by Mr. Fergusson; staphyloma, by Mr. Bowman.

ORIGINAL LECTURES.

A COURSE OF LECTURES
ON THE
NATURE AND TREATMENT
OF THE DISEASES OF THE EAR,
DELIVERED AT
St. Mary's Hospital Medical School.

By JOSEPH TOYNBEE, F.R.S.

Aural Surgeon to St. Mary's Hospital, Lecturer on Aural Surgery at St. Mary's Hospital Medical School, and Consulting Aural Surgeon to the Asylum for the Deaf and Dumb.

LECTURE XX.

ON CHRONIC INFLAMMATION AND HYPERTROPHY OF THE TYMPANIC MUCOUS MEMBRANE.

I am not sure that the above designation is perfectly correct, because it appears probable that hypertrophy of the mucous membrane sometimes takes place without the occurrence of any appreciable inflammatory symptoms; indeed, in children, and to them I am more particularly alluding, having a tendency to glandular enlargements, the mucous membrane appears to become thickened without any symptoms of inflammation whatever. In some cases, however, there is doubtless chronic inflammation preceding the hypertrophy. As the disease is most common in children, I shall in the first place speak of it as occurring in them.

1. *Of Hypertrophy of the Tympanic Mucous Membrane occurring in Children.*

Pathological Observations.—The mucous membrane lining the tympanic cavity very frequently undergoes the process of hypertrophy. This delicately thin mucous membrane, so fine in its natural state that it often requires the aid of touch as well as of the sight to determine its presence, nevertheless becomes so much thickened as to fill the whole or nearly the whole of the tympanic cavity. Instead of being like a piece of the finest silver paper, it becomes more like to velvet. Instead of throwing out so small a quantity of mucus as just to lubricate the surface of the membrane, this secretion becomes thick and viscid, and often fills up all the cavity unoccupied by the hypertrophied membrane. In some cases, where the Eustachian tube is partially or wholly closed by the hypertrophied membrane, the mucus presses upon the inner surface of the membrana tympani, and gradually by its pressure causes absorption, and ultimately an orifice is produced through which the mucus escapes into the meatus, and what was formerly called a case of *otorrhœa* is produced. This discharge through an orifice of the membrana tympani is one of the common results of an attack of scarlet fever, produced in the way just described; of course it does not appear probable that the mucous membrane should become hypertrophied in so short a space of time as that in which a case of scarlet fever is developed, and this, however, may possibly be the case; but I believe it more usually happens that in these cases of catarrh of the tympanic mucous membrane, hypertrophy has preceded the attack of fever; and this condition of the tympanum and of other organs showed a weakened state of the system. Sometimes this condition of chronic inflammation of the mucous membrane extends upwards through the osseous wall, and affects the dura mater. The constant attacks of earache in some children are due to this affection.

The predisposing *cause* of this affection is first to be found out, for it almost invariably occurs in children whose vital power has been lowered by disease, or by some other debilitating influence. Improper food or clothing, insufficient ventilation or exercise, or some analogous cause, may almost always be detected; and when the medical man has detected the predisposing cause, it of course behoves him, if possible, to see it removed at once. This cause can, by the skill of the surgeon, be usually removed or diminished, the so-called exciting cause, which of course being looked upon only as the last link of the chain of predisposing causes. The cause (predisposing and exciting, if you like so to call them) being removed, the next step is to assist in removing the effects. It will usually be observed, on general examination, that the child is pale, flabby, wanting bodily strength and spirit, often the submaxillary or cervical glands are hypertrophied, and the heart is weak. Upon *inspection* of the ear, the dermis of the meatus is usually thinner than natural, so that the calibre of the meatus is diminished, and there is some difficulty in obtaining a distinct view of the membrana tympani; when the latter organ, or a portion of it is seen, its surface is found to be less shining than natural, and it is not unfrequently of a whitish colour, having the appearance of parchment, more or less soddened. Sometimes the long process of the malleus is not seen, but the *processus brevis* stands out prominently. When the Eustachian tube is also obstructed, the membrana tympani is much more concave than naturally externally. Upon exploring the condition of the tympanic cavity, by means of the otoscope, air is not uncommonly heard, and most distinctly, to enter the cavity, but the sounds developed by its entrance are abnormal. Instead of the normal crackling, a flap, as of air suddenly blown into a wet bladder, is heard. At times during the act of swallowing with closed nostril the air does not enter the tympanum, but a forcible expiration with closed nostrils is requisite to ensure its admission, and when the air is forced in, a sound similar to that just named is produced, but of a louder and more defined character. In some cases there is an accumulation of mucus in the tympanic cavity, and when air is forcibly injected therein, a gurgling or bubbling sound is produced.

Treatment.—Of course the first step is to find out the cause, or, to speak more accurately, to discover what has been done, or is being done repugnant to Nature's laws. This cause or these causes must be remedied, and the greatest care taken to see them removed. Frequently many distinct causes can be detected, as improper food, want of exercise, late hours, etc., each of these causes must be controlled, and then Medical remedial means applied. And these are gentle counter-irritation over the mastoid processes, by means of a vesicating plaister or solution. If there is much congestion, and the attacks of pain are frequent, a leech or two may be applied below each ear; a stimulating gargle to be used, and cold water abundantly applied outside the throat. The tonsils, which are often very large, may be washed with a solution of nitrate of silver (twenty grains to an ounce), and tonics are to be administered. In very advanced cases, where the health is much deranged, where the child is anæmic, and its physical powers much depressed, it may be requisite to insist upon sea-air, or, at least, change of air, at once. The *prognosis* in these cases is usually favourable; by careful management, as above indicated, the mucous membrane gradually recurs to a more natural state. The mucus disappears from the tympanic cavity, and the patient's hearing is restored in one or more months. Cases of a less favourable character occur, where the earache has been violent, inflammation acute, and rigid bands of adhesions may have formed on the tympanic cavity, or the membranes of the articulations of the small ossicles may have become rigid. These cases, of course, demand much longer perseverance and more effectual attention, but they usually do well eventually.

2. *Chronic Inflammation of the Mucous Membrane lining the Tympanic Cavity, with Catarrh.*

This affection differs from the last in the circumstance that mucus having collected in so large a quantity as to distend the tympanic cavity, and press upon the inner surface of the membrana tympani, this structure becomes gradually atrophied, and yielding to the pressure of the mucus within, an orifice is produced, and the discharge issues through it. The treatment in this class of cases differs from that of those previously described, in the use of the syringe and warm water twice or oftener daily, whereby the whole of the mucous secretion is removed. The great desire of the friends to have the discharge stopped must be contended against vigorously, inasmuch as the discharge is simply an effect and not a cause. Our duty is to see, if possible, that the causes are removed, and among these causes may be enumerated the one of the exposure of the delicate mucous membrane of the tympanum to the cold air entering through the meatus externus. In these cases the artificial membrana tympani is to be used where the age of the child will permit it, and to the

description of this membrane and its mode of application reference must be made.

3. *Chronic Inflammation of the Mucous Membrane of the Tympanum, with Ulceration.*

This disease is far from being common, and as it has been treated at full length in the lectures upon the diseases of the brain and its membranes, arising from affections of the ear, I will not in this place enter upon the subject, being content simply to indicate that it is one of the affections to which the tympanic mucous membrane is subject.

4. *Chronic Inflammation of the Mucous Membrane of the Tympanum, followed by permanent Thickening and Rigidity.*

The chronic inflammation of the tympanic mucous membrane, already described as occurring in young persons, may, if neglected, end in a rigid condition of the membrane, so that all the ossicles are more or less bound together with more firmness than natural; the membrana tympani also partakes of this rigidity, and (which is of still greater importance), the base of the stapes becomes fixed to the circumference of the fenestra ovalis more rigidly than natural. The result of this condition is that the membrane of the fenestra rotunda also partakes of this rigid condition, inasmuch, as already shown, it is influenced by whatever influences the movement of the base of the stapes. This affection, however, is not so prevalent in young persons as in the adult, where it is liable to come on after repeated attacks of cold, attended or not by pain. But this disease is most frequent in persons advancing in life, indeed it may be considered to be *the* disease which causes *deafness in old age;* the generally received opinion that that the nervous system is at fault in this cause is, I am firmly persuaded, quite incorrect. I believe in the ear, as in most other organs of the body, the nervous apparatus is the last to give way under the influence of simple age.

The *diagnosis* of this affection is far from being difficult, although, as it will be seen, there is very little to afford, excepting the history of the case, and the absence of symptoms. Thus there is very often little or no opacity, or even dulness of the membrana tympani. The Eustachian tube is pervious, and the air enters naturally; not unfrequently, however, the membrana tympani shows signs of chronic inflammation in hypertrophy, and a greater concavity than natural, and the air, as it enters the tympanum, produces a dull, flapping sound, in place of the normal crackling. Sometimes on forcing the air into the cavity suddenly, a very much louder cracking than natural is heard, and the patient sometimes hears better for a short time subsequent to the operation. A symptom of considerable importance in forming a diagnosis is the peculiar character of the deafness. Many patients will hear most distinctly a single voice, however low it may be, but are puzzled to hear anything distinctly when two or more persons are talking; others hear the voice, but cannot discriminate the words, while others can hear slow conversation, but cannot follow it when it is rapid. These symptoms indicate that the adapting power of the ear is at fault, a peculiar power which I have shown to belong to the ossicles and muscles, which are at fault in this affection. But the history of the case, showing it to be one of slow hardening of the tympanic mucous membrane, and the absence of all those symptoms which would be liable to confound it with other diseases, as nervous deafness, obstruction of the Eustachian tube, etc., are usually sufficient to enable a diligent observer to form a conclusive diagnosis.

As the treatment of this disease is the same whether it occurs in childhood, adult, or advancing age, I will consider the subject under one head only.

ORIGINAL COMMUNICATIONS.

ON COUP DE SOLEIL, ITS CAUSES AND TREATMENT.

By G. S. BEATSON, M.D.
Staff-Surg. 1st Class (Half-pay).

In your Number of the 24th ultimo there are some interesting extracts from Army Medical Reports by Surgeon Gordon, H.M. 10th Regt., "On the Statistics of Diseases of the Brain and Nervous System, as they affect European soldiers, etc., in India."

In that paper, if I read it aright, Dr. Gordon seems to consider apoplexy and coup de soleil, or sun-stroke, as including the same conditions of body, and as constituting one disease. That there is a close connexion between these two diseases no one can doubt; but I do not think that they are identical, or that the same treatment, if it is to include bloodletting, is indicated in both. In fact, I would much rather consider, as Dr. Gordon seems to do in a subsequent paragraph, that in coup de soleil the nervous system—probably the great sympathetic, and its important centre, if we may so style the solar plexus—is deeply involved.

Coup de soleil is no doubt marked by symptoms of congestion of head, stagnation of the capillary circulation, and laboured (not generally stertorous) breathing. But in my opinion, these symptoms are the effects of that nervous depression which follows exhaustion from fatigue; an opinion which, in a pure case of coup de soleil, would deter me from using the lancet.

Dr. Gordon remarks that mere exposure to the sun is not alone always capable of producing this affection, as he considers to be proved by the fact, that men who are permitted to indulge in out-door amusements—and let me add, officers of temperate habits, and sufficiently acclimated, who indulge in field-sports—are much less liable to sun affections than those who remain more within doors. But is not this comparative immunity easily and perfectly explainable on the principle of habit, which in India, as elsewhere, enables men to do that which would probably kill the unacclimated, or those unaccustomed to exposure? Unfortunately, however, the thoughtlessness of too many European soldiers renders absolutely necessary a degree of confinement, which under happier circumstances would not be required.

Dr. Gordon further mentions, that such is the rate of mortality under these affections, that of twenty-eight cases only one recovered, and that one only partially. My experience does not agree with this. I will take one particular occasion.

Before daylight, on the 12th of April, 1852, the force destined for the capture of Rangoon landed from the fleet in the river, the stockades along the banks having been destroyed during the naval action the previous day. The force consisted, as regarded Europeans, of about 850 men H.M. 18th R.I., 900 men H.M. 51st K.O.L.I., 460 men (a wing) of H.M. 80th, and about 500 European artillerymen. This force remained for three days and two nights located on a dry open rice flat—we had no tents—exposed to, and utterly unprotected from, the blazing sun by day and the heavy dews by night. As may be imagined, the result of considerable fatigue under such exposure was the occurrence of a number of cases of coup de soleil.

My remarks will be, in a great degree, confined to the 51st Regiment, of which I was then the Surgeon, and in which, on the first day, after the men had been subjected to great exertions in the attack and capture of the White House picket, an important outpost of Rangoon, we had probably not less than from eight to ten cases. In nearly all there were the same symptoms—to wit, unconsciousness, laboured respiration, and extreme prostration. In one—that of the sergeant-major of the regiment—as the insensibility was accompanied by stertorous breathing, with great congestion and suffusion of face and eyes—the Medical officer who first saw him took a few ounces of blood from his arm; in this case I would have done the same—more, however, I believe to satisfy a near relative, than from much hope of a beneficial result, for this was clearly a case of the more ordinary apoplectic character, in which large and rapid effusion produced an almost immediately fatal result. In the remaining cases—including two officers, one the lieutenant-colonel commanding—the lancet was not used, and all recovered. The treatment was to unfasten, as quickly as possible, the man's dress and accoutrements—the men had no stocks on; expose the neck and chest, get him, if possible, under the shade of a bush, raise his head a little, and commence the affusion of cold water from a Bheestie's (water-carrier) sheep-skin bag, continuing the affusion, at intervals, over head, chest, and epigastrium, until consciousness and the power of swallowing returned. When this takes place the affusion may be stopped, and a mild stimulant mixture given occasionally in small doses.

I will now mention two fatal cases which occurred that day, and which struck me very forcibly. Both were field officers of the Madras army.

One, a tall, and very stout man, a field officer of Madras

artillery, after marching about a mile and a quarter, took up a position with his battery, which for some time he directed and worked with great energy. Suddenly he was seen to stagger, and would have fallen had he not been caught hold of by two of his own gunners. He was laid down insensible, and, when seen by the Surgeon, he was bled. On passing shortly afterwards to see a wounded officer and some men of my own regiment, I was so struck by this officer's altered appearance—so altered that I scarcely recognised him—that I could not help remarking to the Assistant-Surgeon of Artillery who was then with him, and whom I knew, that I feared the major was dying. He then told me he had been bled, but he (the Assistant) thought without much benefit. Half an hour afterwards, as he could not find his own Surgeon, he came to ask me to go and see Major O. I went at once, but, alas! only to find the poor fellow in articulo mortis, quite unconscious, his skin cold and clammy, and complete inability to swallow. He died shortly after.

The other case was the brigade-major of the Madras troops.

On moving on with the 51st, the companies in front were already engaged. I met a wounded sergeant returning to the rear. As there was a wound on the scalp, and some hæmorrhage, I stopped for a few minutes to examine and dress it, and to show him the field Hospital to which he was to go. Just as I was leaving him he said, "I am afraid, Sir, poor Captain B. is very badly wounded, but I think Dr. M. is with him." On hearing this I hurried on, but before overtaking the regiment, I saw an officer sitting under a bush, about twenty yards off the pathway. On coming close enough to see that it was the Brigade-Major of the Madras troops, I went towards him, thinking he might be unwell. He said, "Oh no, but as I am rather tired"—he had had a good deal of running about, his horse not having been landed—"I am waiting for the 9th Madras, as I have an order for Major R." On hearing this I told him the 9th were coming up behind me, and I hastened on. Within little more than a couple of hours I happened to meet on the field the Brigadier commanding the Madras troops—my own Colonel—when he stopped to ask me if I knew that poor Major G. was no more.

On subsequent inquiry I learned that Major G. had gone on to meet the 9th; that on reaching the regiment he was scarcely able to stand or to articulate; that in a short time he became insensible and was bled. Within, I believe, an hour, or, at any rate, an hour and a-half *post*, if not *propter hoc*, he was dead.

I confess to some reluctance in mentioning these cases, as I may seem to be reflecting on the treatment employed. This is not my intention, but as I believe that bloodletting in this disease, as a general rule, is a most injudicious and injurious practice, I mention these cases to show that it is far from being a successful one.

Having, however, mentioned these cases, I think it fair to mention another, that of the Brigadier commanding the artillery, who was knocked down about the same time as Major O. In this case venesection was also practised, the Surgeon thought with marked relief, certainly with complete recovery; but still, I cannot help thinking, judging from other cases, that the recovery would have been as complete, and probably more rapid, had depletion not been used, for many of the cases treated without bleeding were quite well in the evening, and at duty the following morning.

In the case of which the particulars of the treatment are mentioned—in the paper above alluded to—Dr. Gordon remarks that there was a desire for drink indicated on the part of the patient, and that cold water being given to him, he drank it with avidity. I knew a case of this disease (coup de soleil) in which a draught (not a large one) of cold water was permitted, as soon as the patient had recovered his consciousness and was able to swallow. He had scarcely taken it when he was seized with a sudden and severe convulsive fit. Was this an accidental sequence or a consequence? I believe it was caused by the sudden impression of cold, which, in the existing state of depression, acted like a blow on the great ganglia behind the stomach. In similar circumstances I have always borne that case in mind. It proved fatal.

All these unmistakeable symptoms of depression, and the favourable results of the non-depleting treatment, convince me that in this disease the congestion of head and capillary system will not be relieved by lowering remedies. That the disease is one of depression—affecting in some way probably the great nerve of organic life—seems to be clear from the fact that it seldom occurs except after fatigue and exhaustion under a tropical sun, aggravated, no doubt, by whatever tends to obstruct the freedom of the venous circulation of head and neck, and to produce such obstruction I know nothing—short of hanging—more effectual than the old leather stock, and tight coatee collar.

The important question which remains to be answered is, Can anything be done to diminish the tendency to this and other diseases among European troops during active service in tropical climates? I reply, that temperate men, *properly dressed*, with tolerably regular meals, in some degree acclimated, and not overworked, can, as the records of Indian service prove, do good work in most parts of India, at all hours of the day, and at all seasons of the year. But, if they are overworked, and if that overwork be long continued, and if exposed night and day without tents, although I do not doubt that even under such circumstances they will achieve glorious results, still I believe they *must* do so at a fearful cost; and if the mortality before Delhi has been happily small compared with that in General Havelock's force, it was chiefly from the former force being engaged in position where they no doubt had good food, tolerably regular meals, and tents to shelter them, while the latter gallant band must have been too often in totally different circumstances.

What the clothing for European soldiers in the tropics should be, there can scarcely, I humbly think, be two opinions; first, as regards the head, it should be a light woollen forage-cap with a good peak, and protected by a good turban, the curtain coming well down to protect back of head and neck, and well round on each side to protect the temples—the turban need not be white; for the neck, a light black neckerchief—no pattern of stock is admissible on active service under a tropical sun. A good loose tunic or short frock or blouse of red serge or other light woollen texture, and blue serge trowsers, loose round the hips and *not* loose round the ankles. A good deal has been said about white clothing for the troops in India; white smock-frocks and trowsers and straw hats are very proper for men passing through the tropics on board ship, or for cantonment life in India, but on service they are utterly useless, and pith hats—although excellent non-conductors and most light and comfortable, are too fragile and easily damaged by rain to be useful for general wear. The men should be advised and urged to wear flannel, and should never move, even in the hottest weather, without their blanket—a good stout brown blanket—for if subjected to sleep in the night air without tents and without blankets sickness must result. Indeed, it is difficult for those who have not felt it, to realise the intense feeling of chillness produced by sleeping, without some extra covering, in the night air, even at the hottest season of the year, in a tropical climate; and if we merely looked at the reading of the thermometer, it would be difficult to account for it. For instance, at Prome in the upper part of Pegu, the thermometer was never in the cold weather at night lower than 47 or 48 degrees, generally about 50°, and still, the feeling of cold was so intense that I have seen the whole regiment when turned out at night—although in their great coats—shivering on parade.

There is only one other subject which I will touch on, as it is one on which great difference of opinion seems to prevail, viz., what will be the probable effects of active service and its consequent exposure on the large European force which is, we trust, ere this on the shores of India? That, under proper management, there is any reason for undue apprehension I cannot for a moment think; but that the mortality, independent of the casualties of war, will exceed—far exceed—the ordinary mortality of cantonment life, cannot, I fear, be for a moment doubted; for the records of even the last Burmese war will force us to this conclusion. It would be unfair to take the experience of the first Burmese war, for every one who has studied the records of that expedition must have the conclusion forced on him that it was starvation and scurvy, not climate, which killed the 70 or 80 per cent. which perished in 1824-25-26. Nor will it do to take the campaigns of the Suttledge and Punjaub, for these campaigns were fought in the cold season, in an almost northern climate, and were all over in a couple of months. But taking the experience of the last Burmese war, during which, with all our discomforts, we had nothing—thanks to steam and to the care and forethought of Lord Dalhousie—under all the difficulties of active service to complain of, unless it was now and then unnecessarily bad

biscuit and during the cold weather insufficiency of blankets for the men. Taking then the experience of this war, we find that in the three Queen's regiments which served throughout the fifteen months of its continuance, viz., from the 1st of April, 1852, till 30th June, 1853, the actual number of men who died *in Pegu* were 18th R.I. 316, 51st K.O.L.I. 243, 80th, 280, total 839, or close on 30 per cent.—as, including drafts of recruits, the actual numbers who served in these three corps amounted to from 2,900 to 3,000 men; besides which casualties by death the numbers invalided amounted to several hundreds more. Indeed, shortly before the announcement of peace, and while it was supposed to be doubtful, I estimated the effective strength of 51st who would be able to take the field at something under 580, non-commissioned, rank and file, out of an aggregate number who had served in Burmah of 1006. So that it will be seen that deaths do not in any way fully indicate the number rendered non-effective, in other words, the numbers required to keep a force up to its original strength; for by deaths, as will be seen above, we had lost considerably fewer than either of the other two corps, although I think the strongest; and equally exposed. Whether the ratio of sickness as well as mortality was less in 51st I cannot say, but I think it probably was, and that if compared, the ratio of deaths to numbers treated would be found nearly the same in all.

But, it may be said, all this may only prove that Pegu is a more deadly climate than India proper. That Pegu is a deadly climate to Europeans exposed to its full influence, I readily enough admit—and the ratio of sickness and mortality among the officers was nearly equal to that of the men; but that it is a bit more unhealthy than most of the districts which in all probability, will be the scenes of active operations in India I no more admit than I am prepared to admit that, because an army perished on the heights of Sebastopol, the Crimea is a bit less healthy than England; and for this reason, that, as was the case with the English army after the fall of Sebastopol, the troops in Pegu—at least the 51st regiment—allowing a reasonable time for the men to have regained their health by rest and care, became as healthy, indeed more so, than we had ever been at Madras. To be sure we had lost, either by death or invaliding, all our weakly and sickly men, and there are in every regiment numbers of men, who, if they escape the fire of the enemy, will go through what would kill a great many others ten times over.

Castle Town, Isle of Man.

CASE OF POST-PARTUM HÆMORRHAGE, AND INERTIA OF THE UTERUS,

SUCCESSFULLY TREATED BY PRESSURE, OPIUM, AND STIMULANTS, WITH REMARKS ON THE TREATMENT OF FLOODING.

By JOHN ROWLISON PRETTY, M.D.

On Nov. 30th, 1856, a little after 5 a.m., I received an urgent call to see Mrs. T., of Grafton-crescent, who had been just delivered of a first child, and who I was told "was flooding to death." She was 23 years of age, and had been married 11 months. Her previous health she considered good.

I am indebted to the gentleman in attendance for the particulars of the labour. "It commenced at about the full period. Membranes ruptured on Nov. 29th at 6 a.m., without pain. First seen 9½ a.m., slight grinding pains existed—os uteri scarcely open; vertex could be felt; all the liquor amnii had been discharged. Sent for at 4 p.m. Pains more severe; os uteri dilated to the size of a crown piece. From this time she was not left. The pains gradually increased in their severity and duration. She held her breath, only crying out as they were ceasing. About 7 p.m. she became hysterical, and the pains began to diminish. Sp. ammon. comp. ʒss. was given. The posterior lip of the uterus was well dilated, the anterior large cushiony and unyielding, and embraced the head. Pressure during the pains, (according to Dr. P.'s suggestion in "Aids during Labour,") on the fundus uteri was adopted, which increased the contractions of the uterus, the pains becoming longer and stronger. This was continued during the remainder of the labour, which made but slow progress. Hysteria continued to threaten and to diminish the frequency of the pains. Occasionally a cup of warm tea, with a teaspoonful of brandy, was given. About 2 a.m. the head had descended, but the finger could be passed distinctly around it. The caput succedaneum was forming, and the sutures overlapping. The vagina was moist and cool. So far there was no sanguineous discharge. About 4 a.m. she complained of something running from her. A small stream of blood was detected, which when wiped away was not renewed. The head was expelled at about ten minutes to five, and the birth was completed solely by the action of the uterus, about five minutes afterwards. The child did not cry for a minute or two, and appeared weak. The funis was then divided, and on examination the placenta was felt in the vagina. A pain ensued in about five minutes afterwards, when the placenta without force was removed. From a slight sanguineous discharge having occurred prior to the expulsion of the child, a full dose of ergot was given immediately afterwards.

The child was of an average size. The placenta was unusually large, and was found to contain a clot about four or five inches long by two in width. On examining the napkin about five minutes after its removal, a large gush in a continuous stream was detected. Dr. Pretty was immediately sent for. Previous to his arrival a second dose of ergot with ammonia was administered; a napkin rinsed out of cold water was dashed repeatedly on the vulva, and pressure made on the uterus. A glass of pure brandy was given, and, as the pulse continued to fail, the same quantity was twice repeated. The discharge now ceased from syncope." At this time I saw the patient, and found a small clot hanging partly out of the vagina, which extended only a short way into it, and that no discharge existed. The radial pulse could not be detected, the face and lips were blanched, she was still conscious. The heart was very feeble, and the extremities were warm. Ordered instantly a drachm of laudanum and sal volatile. On careful manipulation, could not feel the uterus nor induce contraction of it. The abdominal parietes were thoroughly flabby and atonic, and lay over the left side, on which she was lying. I then dashed cold water on the abdomen without the slightest effect, and then tried the douche, at the height of two or three feet, with no better success. She was then dried, and my uterine compress was firmly adjusted, the tourniquet-screw being tightened to the utmost. Applied a napkin rinsed out of ice-cold water to the vulva, first endeavouring, without avail, to produce a shock with it. A wet cloth was also suddenly and repeatedly applied to the face, without any apparent result. In a few minutes the pulse became distinguishable, and by six o'clock it had much improved, and reaction was well established. The patient spoke, and said she felt quite well again. There was not the slightest draining. About ten minutes after six she complained of pain in the abdomen. In about ten minutes afterwards the pulse began to flag, and the countenance and lips to resume their ghastly pallor, although gin-and-water (the brandy having been all consumed) had been continually given in teaspoonfuls since the laudanum was administered. Gave a wineglass and a half of gin with some milk. She felt sick, eructated, and expressed relief, and a large softish clot, found afterwards to weigh 1lb. avoirdupois, without any draining or fluid blood, was expelled at half-past six o'clock. Depression again recurred. Gave tr. opii, ♏ xx. with sp. ammon. comp. From reduction in size, the compress had slackened. Tightened it by unscrewing gradually the tourniquet, and buckling the belt as tightly as possible, and again turning the screw to the utmost. Complains of sickness. Procured some ice from the water-butt, as it was freezing hard at the time. Had some well crushed, and given with gin, and applied a lump in a napkin to the vulva. Again complains of pain in the abdomen, and thinks that the compress is too tight, although such was not the case, nor did it cause inconvenience until the uterine pain returned. Syncope still continues to threaten, although there is no discharge, the pulse falling to a mere thread, and the colour leaving and returning to the lips. The feet and legs became cold. A stone bottle filled with hot water was applied, and a folded blanket was placed over them. About 7 a.m. procured some eggs; gave one with a glass of gin. She was now delirious and restless, continually crying and talking. Depression again increased. Gave two eggs and a glass and a half of gin. About half-past seven she turned round on her back, and threw her legs over the edge of the bed. The compress became somewhat displaced. The belt could not be accurately adjusted without disturbing the pa-

tient too much, and was about an inch and a half too high on the left side, from the wet and rucked clothes preventing its being easily drawn down sufficiently low on that side. I took this opportunity of examining the uterus. It had a peculiar soft doughy feel, the fingers appearing to sink into it, and its fundus extended about two inches above the umbilicus. Readjusted the compress as soon as possible, though not quite to my satisfaction, from the difficulty of drawing the belt sufficiently low. Pressure was well reapplied. The delirium still continued; amorous conversation ensued, and a continued slight movement of the pelvis to and fro, as in connexion, occurred for about three-quarters of an hour. No examination per vaginum had been repeated since my first seeing the patient. Depression again intense, and ghastly pale. Says she is dying; begs to see her husband. More gin given, and, on rallying, sees her husband. This excited her; she jumped up, and clasped him round his neck in an embrace, and begs him not to fret, and to take care of the child. A return of the depression ensued. Stimulants continued, which serve only just to preserve life. Still wandering, and talking about the child, and wants to see her. She became more tranquil, and slept for a quarter of an hour. A teacupful of beef-tea was given, but not retained. Ice and gin were renewed, and by nine o'clock was decidedly better, and more rational. Continued to doze until ten. She woke up refreshed, with the subsidence of alarming depression. At a quarter after ten complained of feeling cramped, and wanted to be moved; was so, without disturbing the compress. Moved herself at half-past ten, and tilted the tourniquet on its side without displacing the compress, which was still though not so efficiently pressed on. The belt was gradually slackened and unfastened, and the uterus was now found unusually well contracted, extending not more than three inches above the pelvis, and remarkably firm. A bandage and dry napkins were applied, and her position in bed was made more comfortable. She continued to improve until 1 p.m., when she was left out of danger, free from headache and any cerebral disturbance.

In the evening she was very comfortable, had had but little discharge, and had enjoyed some refreshing sleep. On Monday morning, December 1, I found she had passed a comfortable night; discharge not more than usual; pulse 96. Two small clots had been expelled without pain. Had no headache; complained of fluttering in the abdomen, but no tenderness. As no urine had been passed, I used the catheter, and drew off about a pint and a half of offensive urine, which was slightly acid. Monday evening, had taken beef-tea, two raw eggs with tea and some milk-gruel. Pulse 104. Had nursed baby, and seemed to have a fair supply of milk. Had felt faint on raising herself to micturate.

Tuesday.—Had passed a good night, and was very comfortable. Pulse 100; ample supply of milk; discharge about the same; had passed a few small clots; had not been faint; uterus can be distinctly felt; no tenderness on pressure.

Wednesday.—Pulse 110; going on well; discharge paler; breasts rather distended. Ordered a saline aperient. In the evening the bowels had been comfortably relieved; breasts were soft; had felt faint.

Thursday.—Says she feels very comfortable; pulse 130; complains of pulsation of the aorta; discharge still slightly coloured, and mixed with offensive mucus; bowels were not relieved until the evening.

Friday.—Pulse 110; discharge about the same colour, and very offensive. Ate a mutton chop and drank half a pint of ale at dinner. Took half a wine-glass of brandy in some gruel at night. Ordered small doses of tinct. ferri sesquichloride, and ether. chlor. twice a day.

Saturday.—Pulse 108; going on well; discharge paler, but still offensive. Ate two chops, and drank a pint of ale.

From this time she continued to improve. The pulse remained frequent on the twelfth day, not having altered, except in size, and having a little more power in it. On the fourteenth day, pulse about the same; was found sitting up to dine; decidedly less pallid, and she stated that she felt better. Her husband, who was present, said that she had always been pale, and he had known her from a child.

The slight sanguineous discharge that occurred one hour prior to the completion of the second stage of the labour may be referred to a partial separation of the placenta, as it contained a clot, and was found detached in the vagina after the expulsion of the child. This induced ergot to be given when the child was born, but hæmorrhage came on just when the ergot ought to have averted it, and it was then repeated. So it failed. Did it help to induce the syncope? (Vide a note of mine on Ergot, *Med. Times*, Sept. 20th, 1856, p. 297; also, Dr. Ramsbotham's case of post-partum hæmorrhage, *Med. Times*, Oct. 6th, 1855, p. 341.) As I have stated in my little book, p. 172, "I believe its efficacy will be found greatly to depend upon its influence on the circulatory system; and as it depresses the heart, so will its specific action be diminished or prevented." I consequently disagree entirely with Dr. Ramsbotham, that the action of ergot "is specific, and that the uterus is not affected through any disturbance first set up in the arterial system," p. 198. In Dr. R.'s reported case referred to in her previous labour, ergot was given just before the birth of the head, and directly after the expulsion of the child, and no hæmorrhage occurred, or anything to occasion the least uneasiness, save "a slight degree of nervous faintness." How far the ergot was the means of inducing this faintness, must be a matter of surmise. Its occurrence with it favoured hæmorrhage, from more or less relaxation of the uterus accompanying such a state—still it did not happen. Did this syncopal threatening avert, instead of induce, hæmorrhage, as it usually does? If so, this would be an exceptional case. This is highly probable from its overcoming the *molimen hæmorrhagicum*, which appeared in this patient to exist. In the succeeding confinement ergot was again given, 30 and 10 minutes respectively before the expulsion of the head. No syncope occurred; "a very copious gush of blood" occurred 15 minutes afterwards, during a powerful contraction of the uterus; the hand was introduced, and a partially adherent placenta was removed. From "a powerful contraction" occurring, we must infer that there must have been more or less relaxation previously, which allowed of its occurrence and the subsequent hæmorrhage. In such a case powerful pressure by the compress would prevent hæmorrhage, and if the placenta is not then expelled, the introduction of the hand becomes necessary; *vide* "Aids during Labour," pp. 131—136. In Dr. R.'s case, neither the ergot nor the introduction of the hand averted an almost subsequent fatal flooding, for in two hours afterwards she was found "faint and blue" from "considerable hæmorrhage" that had occurred. In my case the ergot not only failed, but, with the predisposition to syncope that existed, anything that would favour this would also favour hæmorrhage. I believe, as has been pointed out by me, that discrimination is required in its use, and if given in all cases of flooding indiscriminately, considering that it is a specific, it will, when depression or a feeble action of the heart exists, do positive harm. Hence caution is required in giving it in cases of mental depression during labour, and stimulants which are ordinarily objected to would be preferable, especially at first. Any other controllable means of acting on the uterus is preferable to ergot—as pressure on the fundus uteri during the pains—to prevent over-action on the one hand, and depression on the other. Still its administration in this case was in accordance with admitted principles. The large size of the placenta favoured the occurrence of hæmorrhage and its continuance. Cold to the vulva, pressure on the uterus, and the free use of brandy, failed to arrest the hæmorrhage, or to avert syncope. The patient was then *in extremis*. Pressure of the hand, and the shock from cold water, and the douche on the abdomen, failed to produce the slightest effect. The inertia here—as I have remarked elsewhere, I believe it usually does—succeeds, and is induced by the hæmorrhage. In such a case would the introduction of the hand, so strongly advised by Dr. Ramsbotham, have saved her life? I believe that it would have killed her. Dr. Murphy remarks:—"This manipulation causes great irritation—sometimes too great irritation; and therefore requires prudence and caution in its adoption. In cases of great exhaustion I have known it followed by convulsions and death."—P. 320. Dr. Lee, among other sound advice for the treatment of such cases, states:—"I am now convinced, from many cases, that the practice so often employed, of passing the hand into the uterus, and pressing its inner surface with the closed fist round and round, to excite it to contract, or to compress the bleeding vessels like a tourniquet, is not only ineffectual for the purpose in the worst cases of this kind of flooding, but that it is attended with mischievous consequences after flooding has been suppressed."—*Clin. Med.* p. 197. Had the hand been introduced, it was most improbable, too, that it would have responded to the

stimulus, when cold water and the douche had produced no effect. Mr. Robertson describes such a case :—"The placenta was found detached, and was brought away ; but the uterus showed no disposition whatever to contract; it lay flaccid in the abdomen. I introduced my hand within it, and at the same time applied friction externally without effect; the uterus evinced no contractile tendency more than if it had been a linen bag. In a few minutes after the operation the woman expired. Here no kind of stimulation was capable of exciting the uterus."—P. 413. Should the introduction of the hand excite contraction, how is this to be retained? Dr. Ramsbotham remarks :—"Nor is it probable that the hand will require to be introduced a second time."—*Medical Times and Gazette*, October 6, 1855, p. 341. And yet in the very case reported by him this became necessary. Dr. Lee most truly remarks :—"For several hours after delivery, in some cases, this alternate relaxation and contraction goes on, to the great hazard of the patient. By far the most important remedies, and those on which I place the chief reliance in such attacks, are constant and powerful pressure over the uterus, and the application of water to the external parts, and the exhibition of stimulants, particularly wine and brandy. The abdomen should be strongly compressed with the binder, and folded napkins placed under it, and in addition, the hands of an assistant should be applied over the uterus."—*Op. cit.* p. 147. Such were the principles that were carried out in the present case successfully, and that too when treatment ordinarily advanced had failed. The only question I would raise is the means of applying powerful compression. In cases of inertia, were pressure applied as suggested by Dr. Lee, I believe that it would fail of success. A binder and napkins would be insufficient; and were the hands of an assistant procurable, they are not adapted for long continued pressure, as it would be unconsciously relaxed. Again, such physical power is not to be expected, particularly too when the accoucheur is fatigued after an attendance of several hours—thirteen in the present instance—prior to the occurrence of hæmorrhage. It is then that the uterine compress, ("Aids during Labour," pp. 93-96,) is of much service to the accoucheur. It consists of a pad that folds up into three parts, for the convenience of carriage, and is thoroughly portable, and about three inches in width, with Mr. Coxeter's improved tourniquet attached to it for regulating the pressure, and which is fastened with a buckle.

(To be continued.)

ON THE USE OF KAMEELA AS AN ANTHELMINTIC.

By ARTHUR LEARED, M.B. L.R.C.P.
Physician to the Great Northern Hospital, &c.

I HAVE recently treated a case of tape-worm, in which most of the usual remedies were tried without effect. Having obtained a supply of Kameela (the powder from the capsules of *Rottlera tinctoria*), I was successful in causing expulsion of the worm. We are indebted to Dr. Alexander Gordon, of the Army Medical Service, for statements regarding the employment of this remedy in India. (*Med. Times and Gazette*, May 2nd, 1857.) But I believe no report has been hitherto published of the use of kameela as an anthelmintic in this country.

A. W., a servant, admitted into the Great Northern Hospital, Dec. 9th, 1857. The patient is a single woman, 26 years of age, rather stout, but languid-looking, pale, and subject to menstrual irregularities. There are many proofs that she suffers from hysteria. She has for a long time experienced a loathing of cooked meat, of farinaceous diet also, and her dislike to sugar she characterises as "fearful." With these antipathies her desire for raw meat is irresistible. She is in the habit of eating raw pork, as well as all other sorts of flesh and fish she meets with in the same condition. She is particularly fond of raw livers of any kind. Her appetite is indifferent, and she has frequently an acid taste in the mouth. Occasionally she has pyrosis. Her bowels are usually relaxed. About two years ago first noticed that joints of tape-worm were passed. The practice of eating raw meat had been commenced previously. Gnawing pain in the lower part of the abdomen, with pain of the right side, and nausea on awaking in the morning are her habitual symptoms. A day seldom passes of late without some segments of the worm having been voided, either at stool, or during sleep, or occasionally when at work.

She has made repeated attempts to get rid of the parasite. For two different periods of three weeks at a time she took, by Medical advice, oil of turpentine in small but repeated doses. Once she took ʒij. as a morning dose. The so-called worm-cakes and decoction of tansey were also tried. As an out-patient of the Hospital she took, by my directions, Ol. ricini ʒi. at night, and on the following night Decoct. Granati radicis Oj. in doses of ʒij. every half-hour. I ordered subsequently Ol. Filicis, maris first in ʒj. and then in ʒij. doses. It may be briefly stated that all the foregoing remedies were attended either with the trifling effect of bringing away a few more segments of the worm than usual, or with no effect at all

Ordered Kameela ʒi. to be taken in water at bed-time. Low diet, with beef-tea.

10th.—The medicine having been taken at 8 p.m. the bowels were slightly moved at 4 a.m. A second ʒj. dose was taken after breakfast at 9 a.m. It purged in about three hours, and a long portion of worm was passed.

11th.—Two doses similar to the last, and at intervals of three hours, were taken since my last visit. She has been purged several times during the afternoon of yesterday and last night, and vomited once. She has also had a good deal of "pinching" abdominal pain.

In the collected stools I found pieces of tape-worm many feet in length—these, together with the shorter pieces, measured 163 inches in all. There could be no doubt the pieces belonged to an individual tænia solium. The great tenuity of one portion of the worm makes it probable that the head had been evacuated, although it could not be discovered. Life was not noticed in any portions of the worm. They are stained a bright yellow colour, evidently by the kameela. Its particles are also noticeable in the water in which the worm has been placed.

12th.—Bowels not moved yesterday. Ordered, Ol. ricini ʒi.

13th.—Oil purged freely; no traces of worm in the motions. Feels well of all the symptoms referrible to the worm, except that pain of the right side exists in a modified degree.

14th.—Discharged well.

So many approved medicines having been fruitlessly tried, coupled with the success attending the kameela, make this a case of great interest. In addition, the evidence of the development of tape-worm from cystic parasites in animal flesh and viscera taken as food, is important.

48, Finsbury-square.

THE LONDON PRACTICE OF MEDICINE AND SURGERY.

GUY'S HOSPITAL.

RETAINED MENSES FROM IMPERFORATE HYMEN.

(Under the care of Dr. OLDHAM).

ABOUT a fortnight ago a young Jewess, aged 16, was relieved by Dr. Oldham, at Guy's Hospital, of a large quantity of retained menstrual fluid, from an imperforate state of the hymen.

She dates the first feelings of menstruation pretty accurately about a year back, when she experienced pains in the back and loins, which lasted two or three days, and then passed off without any flow. These pains occurred as nearly as possible once a month up to the present time. Six weeks since she complained to her mother of a swelling at the vulva, for which the mother sought the advice of Mr. Kisch, of Finsbury-circus, who placed the girl under Dr. Oldham's care.

She is of short stature, of almost chlorotic paleness, with well-formed loose mammary glands, and a perfect development

of the pelvis and external sexual organs. A swelling rises from the pelvis and reaches as high as the umbilicus, being directed towards the left side of the abdomen, and its upper part projects abruptly. It is not tender to the touch, and there is no sense of fluctuation. The left orifice of the vagina is closed by a firm hymeneal membrane, which bulges out beyond the vulva, separating the external labia, and looking like the membranes in labour, the colour, however, being of a deep purplish character. It was obviously an imperforate hymen, very firm and tough in structure, pressed out by the accumulation of menstrual fluid within the vagina. In order to evacuate this fluid, Dr. Oldham cut out a central elliptical portion of the membrane with a pair of curved scissors, and, introducing the forefinger within the orifice thus made, he dilated it by tearing its edges. A dark-red, inodorous, inspissated fluid, of the consistence of oil-paint, ran out very freely, and the abdominal tumour correspondingly lessened. Forty-eight ounces escaped, and four ounces more after she was in bed, making in all fifty-two ounces by measure, which weighed fifty-seven ounces. The vagina was syringed with warm water in the evening.

On examining the vagina, Dec. 10, the cervix uteri was felt much enlarged and spread, the os not much dilated, and the body of the uterus but slightly increased in size. The vaginal walls were thickened and rough, and the canal still largely expanded. It was obvious that the menstrual fluid had been retained almost entirely in the vagina, which had been both lengthened and expanded to receive it, and that the body of the uterus had not been dilated, but had formed the projecting parts of the abdominal tumour felt before the operation.

Dr. Oldham remarked that the quantity of menstrual fluid was large; and, supposing the girl to have passed thirteen menstrual periods, it would yield 4 oz. for each period. Contrasting it with a case of retained menses from an imperforate vagina, where the uterus contained the fluid, published in the current number of the Guy's Reports, it would be seen that, although in the latter case the girl had attained the age of 23, the amount of menstrual fluid was far less in quantity. This he explained by noticing, that in the history of the latter case there appeared to have been long intervals of amenorrhœa, which probably were produced by the presence of the pent-up fluid in the cavity of the menstruating organ. Of all cases of retained menses from organic imperfection, that from the imperforate hymen was the least injurious to the health of the patient, the least painful to bear, and the most manageable by a simple surgical operation.

DEFORMED PELVIS — INDUCTION OF LABOUR BETWEEN THE SIXTH AND SEVENTH MONTH.

(Case under the care of Dr. OOLDHAM.)

A young woman was lately admitted into Mary's Ward, under Dr. Oldham, for the purpose of having labour prematurely induced, on account of a contracted pelvis from rickets. Six years ago she had gone her full time with her first child, when Dr. Oldham had delivered her by craniotomy. She is of short stature—her legs bent and bowed by rickets, and the conjugate diameter of the pelvis narrowed to very little beyond two inches from the projection inwards of the promontory of the sacrum and the fore part of the pelvis.

No satisfactory account of the date of pregnancy could be ascertained, but as far as could be judged, she was near upon the seventh month.

Endeavours were made to excite the labour by ergot of rye, then by electro-magnetism, then by the injection of a stream of warm water, but without success; and Dr. Oldham eventually punctured the membranes, and drew off four or five oz. of liq. amnii. This was done at 2 p.m., Dec. 1st, and in fifty hours labour began. The os uteri slowly dilated, and a male child, still-born, was expelled in twenty hours from the commencement of pains. She is now recovering.

Dr. Oldham, upon the whole, is disposed to give preference to puncturing the membranes, as the means of inducing labour. Its merits are its being a simple, safe, and sure method, speedily and readily accomplished, providing the instrument employed for the purpose is a good one. The various other methods are for the most part tedious in their performance, harassing, and sometimes painful to the patient, and often unsuccessful, although the object sought by them, in preserving the membranes entire, is good as far as it goes, but not so good as to compensate for these drawbacks.

UNIVERSITY COLLEGE HOSPITAL.

CASE OF SULPHURIC ACID POISONING.

(Under the care of Dr. JENNER.)

(Reported by F. B. JESSETT, House Surgeon.)

Jane Ashley, admitted into University College Hospital, October 30th, 11½ a.m., having swallowed nearly ʒij. of sulphuric acid, which she obtained from an oil-shop, about half an hour before, for the purpose of self-destruction.

The acid contained two-fifths of the strong sulphuric acid. She had walked about a quarter of a mile to the hospital by the aid of two people. Vomited before leaving home, but not on the road to the hospital. On admission she was vomiting; the vomited matter was about the colour of porter, and of strongly acid reaction. Two drachms of the sesquicarbonate of soda were administered, freely diluted; shortly after taking this she vomited again—vomited matter neutral. The soda was repeated, and the woman was sent into the ward under the care of Dr. Jenner. ℞. Mist. cretâ, ʒj. omni hora sum. Cataplas. sinapis epigastrio.

The corners of her mouth were sore, as though the seat of superficial ulceration; surface white; no other evidence about the mouth of the use of acid. Had suffered much pain before coming to the hospital, between ensiform cartilage and umbilicus.

At 1 p.m. she was pale and cold; expression of prostration and collapse. Pulse 48, small, not very weak. Lay on left side, with her legs drawn up; quite sensible. By her side was an utensil, about two-thirds filled with a red fluid, evidently diluted blood; the fluid had an alkaline reaction. Matter ejected from stomach without any great effort. She moaned from time to time, as though suffering pain. Two hours later surface was still cold and pale; vomiting continues. Vomiting ceased at 9 p.m.

Towards the evening she became hot; her face was flushed. Pulse 60, full and firm.

In the course of the evening she had taken a little beef-tea without salt, and two cups of tea. There was no vomiting; no stools; no marked thirst.

Diet.—Beef-tea, without salt, Ojss.; bread, ʒiv.; gum-water ʒvi. Hirudines x. epigastrio.

31st.—Mind quite natural. Pulse 84, rather small and weak. Tongue moist, thinly furred, dirty whitey-brown. Ulceration of the angle of the mouth, left more than right. Says that she has some difficulty of swallowing; no enlargement of glands about the angle of the jaw. Abdomen moderately full, resonant; some tenderness over the whole abdomen, but very considerable tenderness between the umbilicus and ensiform cartilage.

Nov. 1. Has thrown up about ʒi. of faintly alkaline tenacious fluid. Has had a simple enema Oiij.; about ʒviii. only returned, containing a small piece of solid fæces; the enema was repeated, but to this time is retained. No thirst; some desire for solid food. Slept well.

2nd, 4 p.m.—℞. Ol. ricini ʒss. statim sumend.

3rd.—Rept. Ol. ricini. Was sick after taking oil yesterday; it did not act on her bowels. Passed urine freely this morning. Pulse 108, moderately full.

4th.—Bowels freely opened. As she was unable to pass urine, this morning it was drawn off; quantity ʒxxii.

5th.—This morning ʒxxxiv. of urine were removed by catheter; reaction strongly acid, contains blood, pus, and albumen; sp. gr. 1·020. Appetite improving; says she should like a little pudding; ordered rice pudding.

8th.—Urine still obliged to be drawn off; contains pus and albumen. Bowels continue much relaxed. Ordered a little fish. Omit gum-water.

9th.—On examining the abdomen to-day the umbilicus protruded, and the surface of abdomen for about one and a half inch above umbilicus is redder than the surrounding part. On pressing the umbilicus or reddened surface, the woman expresses great pain.

10th.—Tenderness about the same; the woman obstinately refuses to take any sustinence, and when the nurse attempts to give her beef-tea, she lets it run out of the corners of her mouth.

12th.—To-day a large slough was noticed on the right buttock, close by the anus; a probe passes some distance into the pelvic cavity, and also some distance along towards the gluteal region.

14th. There is a marked change in the patient's appearance to-day. Her head is thrown back, cheeks livid, eyes sunken and unexpressive of suffering. She is so weak that when her head falls from the pillow she is unable to replace it without the assistance of the nurse. She still remains quite sensible, asking for anything she may fancy to have, but she speaks in such a low muttering voice that it is with the greatest difficulty that one can hear what she says. She was ordered some wine this morning, but she is unable to take it. At 5 p.m. she died.

16th. *Post-mortem Examination, forty-three hours after death.*—Cadaveric rigidity well marked. Brain healthy. *Lungs* united to the thoracic parietes and diaphragm by old adhesions; otherwise healthy. *Heart* normal. *Liver* connected with the diaphragm and abdominal walls by old adhesions. *The great omentum* extends into the pelvic cavity, forming a cord, which passes over the ileum, just before its junction with the cœcum, and is adherent to the fundus of the uterus. The œsophagus and larynx are pale and normal in appearance, excepting for 1½ inch above the cardiac orifice, for which extent the œsophagus is somewhat grey in colour. *The stomach* is adherent, over the pyloric third of its anterior surface, to the abdominal walls, just above the umbilicus, and also to the liver. On separating the stomach from the abdominal walls, its anterior wall is found to be perforated in three different places. The perforations are seated on a space of 2¼ inches transversely, by 1½ inch from above downwards; the largest opening measured 1¼ inch by 1 inch. None of the contents of the stomach have escaped into the peritoneal cavity. The stomach is contracted, and at the same time collapsed. On opening the stomach, a large yellow slough is seen to occupy its whole length. On making an opening into this, and letting some water run into the opening, it swells out, showing that it is a cast of part of the stomach. The mucous and submucous coats have disappeared over a good portion of the stomach, the remainder is rugose. The rugæ are formed of thickened mucous membrane, of ashy-grey colour. The spaces between rugæ are dark-grey, almost black, uncovered by mucous membrane. The cut surface of the stomach, dark-grey; the coats of the stomach are indurated; there are no distinct vessels perceptible; the fundus of the stomach is the part least affected. *Spleen* healthy. *Kidneys.*—The right kidney is very much contracted, and nodular; its capsule does not separate very easily. Left kidney enlarged, situated rather lower than natural; the capsule separates with great facility. *Bladder.*—Mucous membrane inflamed. *Uterus* is adherent to the peritoneal coat of rectum and peritonæum adjacent. On tearing it away a large quantity of sloughy cellular tissue and puriform matter is found behind the rectum and peritonæum, lining the posterior surface of the pelvis. This has no connexion with either the rectum or the vagina, but is continuous with the slough found during life in the gluteal region, and is evidently of some standing.

Remarks.—The redness, etc. noticed during life above the umbilicus was evidently due to the perforation of the stomach, adhesions having formed between the stomach and the seat of perforation. The escape from injury of the mouth, pharynx, etc. Dr. Jenner attributed to the dilution of the acid; the injury of the stomach to the time that elapsed (nearly an hour) before the administration of an antidote. The acid was strong enough to destroy deeply the surface with which it remained in contact, but not that over which it passed lightly.

In comments on the case at the bedside and in the dead-house, Dr. Jenner pointed out, as especially worthy of notice,

1st. That, with the exception of a little excoriation of the corners of the mouth, and some evidences of slight inflammation of the lower part of the œsophagus, neither the mouth, pharynx, nor œsophagus exhibited any traces of the action of the acid.

2nd. That the upper part of the duodenum was the only part of the intestinal tract on which the acid had produced inflammation, and that even there its action had been trifling.

3rd. That the injury of the stomach was most extensive and severe, especially at its pyloric half and the smaller curvature. The mucous and submucous coats, and at places the muscular and serous coats, had sloughed away, the slough lying free in the cavity of the stomach. That the yellow mass was really a slough and not lymph, was proved by its consistence, its shaggy aspect when floating in water, and the undestroyed fibrous tissue found in it by the aid of the microscope. Its orange-red colour was probably due to the imbibition of bile.

The patient died on the 16th day after swallowing the poison. Dr. Jenner referred to a case of poisoning by strong sulphuric acid under his care in private, in which a slough larger than that above described was ejected by vomiting about ten days after swallowing the acid. In that case the acid was much stronger, and the mouth, as a consequence, was much excoriated.

From the pyloric portion and the smaller curvature of the stomach having suffered more than the fundus, and from the freedom of the intestines from injury, it would seem as though the fundus had contracted rapidly, and driven the acid on towards the pylorus; which latter, however, had refused to allow its exit.

THE PROVINCIAL
PRACTICE OF MEDICINE AND SURGERY.

LEEDS GENERAL INFIRMARY.

COMPOUND DISLOCATION OF THE ANKLE AND OF THE ASTRAGALUS — REMOVAL OF THE END OF THE FIBULA AND THE ASTRAGALUS —RECOVERY.

(Under the care of Mr. SMITH.)

(Communicated by R. G. HARDWICK, House Surgeon.)

William Schofield, aged 52, a bricklayer, of very intemperate habits, fell from a scaffold six yards high, on Oct. 16, 1855. He was brought at once to the Leeds Infirmary, when his foot was found quite twisted inwards, and the end of the fibula was projecting through the skin, the astragalus also being dislocated on to the outer side of the dorsum of the foot. Mr. Smith sawed off the end of the fibula, and the ankle was then easily reduced. The astragalus, however, could not be replaced, so the skin having been divided, its removal was easily accomplished, on account of its attachments to the other bones being torn through. The wound was covered with lint dipped in the white of egg, a bandage lightly applied, and the leg placed on the outer side on a pillow, without any splints. The treatment by position without splints was adopted throughout. The patient was allowed a liberal diet, with five or six pints of beer daily. About a fortnight after the operation he had two or three severe rigors; the suppuration remained very profuse for several weeks. On the 10th of January, 1859, the wound was quite healed, and he was soon afterwards discharged.

A short time ago this man was again in the hospital for disease of the bladder. He had entirely recovered the use of his limb, and could walk well, with only a very slight limp. There was a little hinge-motion in the joint. The foot had nearly the same appearance as the other, the only difference being that it seemed rather wider across the ankle, and the inner malleolus was a little nearer the sole of the foot. This is the seventh case in which it has fallen to the lot of Mr. Smith to excise the astragalus; out of these two died, and the other five recovered with a useful walking limb.

SUNDERLAND INFIRMARY.

CASE OF COMPOUND DISLOCATION OF THE KNEE-JOINT.

(Under the care of G. P. PARKER, Esq., M.D.)

(Reported by Mr. BARRON.)

On February 6th, 1857, G. Robson, aged 12, was run over by a "traveller," at a ropery, and his left leg received a severe injury. He was seen at 11 p.m., six hours after the accident, when the leg presented the following appearances. The integuments were torn from the commencement of the lower third of the thigh, on the inner side, and extended obliquely over the knee-joints to below the popliteal space behind: the internal condyle of the femur projected through the wound, the crucial ligaments being also torn—no vessels injured. He had quite recovered the shock of the accident. As his friends would not allow him to be removed to the

infirmary, it was determined to put the knee up in a case of wet bandages, and place the leg on a bent splint.

7th.—Passed a good night, no pain, pulse 96.

8th.—Pulse 120, tongue dry, and brown; pain in the course of the femoral artery; the foot and leg appear natural.

At a consultation of the surgical staff, held at 3 p.m., it was determined to persevere in the attempt to save the limb. Leeches and anodynes.

10th.—Pulse 140, much the same.

15th.—Has been going on very well since last report. To-day pulse 128; complains of pain in the knee. An opening was made in the under and inner part of the stiff case, as far from the knee as possible, and through which flowed a quantity of healthy pus, to the great relief of the patient.

20th.—Bronchitis, which ceased in a few days.

27th.—The stiff case was removed to-day for the first time, when the wound in the knee was found healthy.

Three weeks afterwards he nearly sank from abscesses occurring in the calf of the leg—sinuses formed in all parts, which were freely opened.

With many alternations he gradually progressed to convalescence.

Nov. 30th.—Saw and examined the leg to-day. It is quite healed and strong, but there is little or no motion in the joints. The boy has gone to work.

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Medical Times & Gazette.

SATURDAY, DECEMBER 19.

THE ROYAL MAIL STEAM-PACKET COMPANY AND THEIR SURGEONS.

It is desirable to offer a word of caution to gentlemen who may think of accepting service in the Royal Mail Steam-Packet Company as Surgeon to any of the vessels of the Company. There are two classes of these vessels—Transatlantic and Inter-colonial. The former trade between Southampton and the West Indies or Brazil; the latter between the West Indian Islands, or the Spanish Main, Gulf of Mexico, and Brazil. There are about twenty-five Surgeons in the service of the Company, of whom twelve Seniors are in the Transatlantic, and the remaining Juniors in the Inter-colonial ships. The inducements to enter this service offered by the Company to Medical men in their circular are pay, and the prospect of obtaining fees from invalid passengers. The pay for the first year is £6 per month; after the first year, £7; after two years, £8, and the one Surgeon who is Senior in the service, gets £10 a month. In addition to this there is a free table, and fifteen pence a day instead of an allowance of wine, if this allowance is not drawn. On entering the service, a Surgeon is appointed to an Intercolonial ship, but he is informed that after six or eight months' service he will, probably, be promoted to one of the Transatlantic line. Besides the difference of climate, and the occasional return to England, the great difference between these two lines is the fact that in one the fees from passengers are almost nothing, while in the other they average about £20 a month. When the ships of the Company are employed in conveying troops the Surgeon's pay is doubled, proving that these officers are not regarded as depending on their pay, but that the fees of passengers are looked upon as a ground for inducing them to accept the low rate of pay offered by the Company. Yet we have just seen a correspondence between Mr. C. W. Dennehy, Surgeon of the Medway, and the Company, ending in the dismissal of this gentleman from the service, because he had stated that he considered himself entitled to £20 for a long attendance on a Liverpool captain, part owner of a vessel, who came home from Rio to Southampton very dangerously ill. As an additional hardship, the rules of the Company forbid the Captains with whom Mr. Dennehy has sailed from giving him any certificate of good conduct. This appears to be most glaring injustice, and we do not wonder that Mr. Dennehy warns his professional brethren not to subject themselves to similar treatment. In another case, Mr. White, late Surgeon of the Solent and the Trent, was treated in a most unbecoming manner by the captain of his ship. Failing to obtain redress he sent in his resignation, but the Company would not accept it until it was quite convenient for them to do so, and then they "dispensed with his services," instead of accepting his resignation. It seems a most objectionable rule of the Company that Medical officers on entering the service should sign articles like ordinary seamen. This puts them completely in the power of the Captain—and many of the Captains are ill-bred, uneducated, disagreeable men. All this is very bad policy on the part of the Company. Their Surgeons should be appointed by a sort of warrant or commission. They should be treated as gentlemen, and at the very least they should be fairly dealt with in all matters of business. The risk they run in epidemics and yellow fever is well known; but the importance of maintaining a staff of Medical officers of a high class must be entirely overlooked by the Company, or they would behave in a very different manner. Perhaps, however, the fault does not rest with the *Directors*, who are believed to be gentlemen, but with two *Managers* whom the Board seem to invest with all their own authority. We trust that by bringing this matter before the Directors we may lead to a reform in very evident existing abuses.

MR. GRIFFIN'S POOR-LAW MEDICAL REFORM BILL.

With the re-assembling of Parliament Mr. Griffin commences anew his praiseworthy agitation on behalf of his ill-used brethren of the Poor-law Medical service. He has now addressed a letter to the Poor-law Medical officers in the United Kingdom, inclosing the draft of a proposed Bill to be laid before the two Houses of Parliament for the redress of the grievances under which he and the rest of the Poor-law Medical officers at present suffer. He invites suggestions upon any parts of the proposed measure within fourteen days after his letter is issued, and a new draft Bill will be printed in accordance with any alterations which may be proposed. He also earnestly points out the necessity of funds for the purpose of carrying on the agitation, and he truly remarks, that however just and reasonable a public cause may be, the pressure from behind is always necessary for moving the dead weight of persons in authority. The following energetic appeal to his brethren will, we hope, meet with a ready response from thousands throughout the country. "Bear in mind," writes Mr. Griffin, "the battle the Association is fighting is your battle; it is the battle of the children of many of us; it is the battle of the weak against the strong; it is the battle of the Profession against long and cruel injustice and grinding misrule; it is a battle for the welfare of the poorer classes; and, I may add, it is a battle for the good of the ratepayers, as an improved state of health of the com

munity must tend to a diminution of the poor-rates." The draft Bill proposed by Mr. Griffin embodies all those topics which have of late so often been laid before the Profession. It provides for the permanent tenure of office on the part of the Poor-law Surgeons, except in case of disability from age or incompetence, or dismissal by the Poor-law Board; it exacts a proper amount of Professional qualification in the candidates for the office of Poor-law Surgeons; it fixes the rates of payment for each case of pauper attendance, in and out of workhouses, and it defines who are to be the recipients of such relief; it gives a graduated scale on which different operations and consultations are to be remunerated; it provides for the efficient performance of vaccination, and for a due remuneration to the vaccinators, and renders the performance of the operation compulsory on the part of the public: it gives to the Medical officers the superintendence of the hygienic arrangements of the workhouses or localities in which their functions may be exercised; and it proposes the formation of a superannuation fund for the benefit of decayed or aged members of the Medical Poor-law service. Besides all these propositions, it aims at improving the *personnel* of the Poor-law Board itself, by adding a Medical Secretary to that Board, who shall be, or shall have been, in the Medical Poor-law service himself, and shall be nominated by the Union Medical officers. It would be obviously premature in us to offer many remarks at present upon the details of the Bill now presented by Mr. Griffin to the consideration of the Poor-law Medical body and of the Profession at large. It is at present open to suggestions from all quarters, and will no doubt receive many modifications before it is again offered to notice, or brought upon the table of the House of Commons; but many of the reforms which it aims at effecting are so important that we hope that even if it should prove impossible to induce the Government to practically supersede the Poor-law Board by a Bill of this kind, yet its main principles will receive a warm and unanimous support from all those who desire a redress of the present grievances. Mr. Griffin has a noble cause in his hands, and he has advocated it most nobly; and we trust the members of the Profession will now rally round him more closely than ever, and show to the authorities, by their resolute attitude, their firmness and determination to obtain justice. They must not be disheartened by partial failure, but must go on besieging the doors of the Houses of Parliament, and making what interest they can with individual members, until our legislators are thoroughly acquainted with the nature of the present evils and the imperative necessity which exists for their speedy removal.

THE WEEK.

It has become the fashion for certain writers to throw doubts upon the truth of the reports of the atrocities committed by the Sepoy mutineers upon our countrymen in India. It is said that these reports have come through native spies, have been coloured by the Indian press, and have not been authenticated by European testimony. How far these arguments are worthy of credit our readers may judge from the following statements. We have been assured by a Medical friend that he has been consulted by a lady who has recently arrived at Bayswater, from India, whose *nose has been cut off*. Her child, three years old, has neither hands nor feet; they were *all cut off* by the mutineers. How the child survived is a mystery. The governess to this family escaped with the loss of her ears, which were *cut off* as an easy way of getting her earrings. Another friend is attending a lady whose nose has been slit open, and her ears have been cut off. She has brought home to England three young children, *all blind*. *Their eyes have all been gouged out* by the brave Sepoys. We have heard from another source, quite beyond question (a lady who speaks from personal knowledge), that there are several ladies now in Calcutta who have undergone such unspeakable degradation that they obstinately refuse to give their names. They prefer to be thought of by their relations in England as dead. There are also in Calcutta several young children whose names are quite unknown. One little creature says she is "Mamma's pet;" and that is all we are ever likely to know of her past history.

It is not often that we feel called upon to notice a sermon, but we do hail, as evidence of the accession of the Church in aid of sanitary science, a sermon which has just been published by Her Majesty's command, preached by Dr. Robert Lee, one of the Deans of the Chapel Royal, entitled "What Christianity teaches respecting the body." The discrimination of the Queen in selecting such a sermon for publication is a cheering sign. One extract must suffice now as an example of the whole:—"Unless mankind shall be taught to take a conscientious interest in their bodily welfare they will hardly be persuaded to feel that concern which they ought in the health and salvation of their souls. He cannot be expected to aspire after eternal life who has not learned to appreciate the blessing of temporal life. * * * * The Platonizing Christianity which would induce men to care for their souls by teaching them to contemn the fleshly tabernacle, is not less pernicious in its practical influence than theoretically vicious and false."

Complaints are made at all the Schools of the insufficient supply of subjects for dissection. The total number of subjects received this session at the following schools—Guy's, St. Thomas's, St. Bartholomew's, King's College, the Middlesex, University College, and St. George's—up to the 15th instant, has been only ninety-four; and of this number at least one-fourth have been from the hospitals themselves. One teacher blames the Anatomy Act, another the Inspector of Anatomy. Perhaps both are right. There certainly does seem to be an arrangement with certain undertakers which makes the price of subjects unnecessarily dear: and a want of arrangement with the Guardians leading to the necessity for bribing the masters of workhouses and their underlings. This has led to great scandal at Newington, for we find by the *Times* that "considerable excitement was created by the discovery that the master of the workhouse, in concert with the parish undertaker, had been in the habit of disposing of the bodies of deceased paupers for anatomical purposes. Persons who supposed they were following the body of a deceased relative to the grave not unfrequently followed a perfect stranger, brought from other parishes, while that over which they supposed they were mourning had been disposed of in a different way, and the thought of such deception created great dissatisfaction." It is to be hoped that the Anatomical teachers in the different schools will take up this important matter seriously and earnestly.

An inquest was held on Monday at Monkwearmouth on the body of a child aged one year and eight months, the son of Mr. James Smith, Surgeon. The surgery door had been left open, and the child, unknown to the family, had entered the room and succeeded in climbing up to a small closet, where there were a number of bottles containing various drugs. His eye, doubtless, was attracted by a coloured bottle which contained prussic acid, and from which he had evidently drunk a few drops; for upon Mr. Smith coming in shortly afterwards and going to the surgery, he found his child upon the floor with the bottle close beside him. Brandy and other stimulants were immediately administered by

Mr. Smith, and by Mr. Davies, who was sent for to his assistance, but without avail, for the child died soon after Mr. Davies arrived. The jury returned a verdict of "Accidental Death," and added a caution to persons having poisons in their houses to keep them under lock and key. A very proper and necessary caution; yet the Druggists tell us that if they lock up prussic acid the key will be used so frequently that all reverence for the poison closet will be lost.

The drainage of the metropolis and the cleansing of the Thames does not advance. Sir Benjamin Hall thus stated in the House of Commons last week the present position of the matter:—"By the Act it is declared that the Board shall make such sewers as will not allow the sewage of the metropolis to pass again into the metropolitan area; and what they contend for is, that when they have disposed of the sewage of the metropolitan area they have complied with that requirement, and that they are not bound to carry away the sewage created out of the metropolitan area, although that sewage would pass through their sewers into the Thames again. I say that never could have been the intention of the Legislature, or the true meaning of the Act, and that it is their duty to intercept all sewage which would otherwise flow into the Thames within the metropolitan area. In this way the matter stands, and I hope the House will be of opinion that I have properly exercised the powers which were intrusted to me." Not very satisfactory this! We and our children are being poisoned while Sir Benjamin Hall and the Board of Works are fighting.

The system of election by merit is likely to have another trial at Birmingham early next year. In consequence of increasing occupation as a practical chemist, Mr. Shaw, the present Professor of Chemistry at Queen's College, has announced his intention of resigning office at the end of the present session. The fees of the class amount to about 150*l.* a year, and, as several junior offices are also likely to be filled up before very long, as Assistant-Physician, Assistant-Surgeon, Curator of Museum, etc., a Medical chemist of merit would, in addition to the chair, have an hospital position in view. There must be a clear understanding, however, that no votes are promised before candidates are invited, or the so-called election by merit becomes a wicked mockery.

We augur well for the sanitary condition of the army in India under Sir Colin Campbell, from the fact that he has issued a brief sanitary code drawn up by Dr. Harrison. There is nothing in the maxims so judiciously circulated which is not well known to all Medical men who have paid attention to the means of preserving the health of Europeans in hot climates; but the mere fact of a Commander-in-chief thinking it advisable to carry out and approve the suggestions of his Medical officers is a very cheering sign of progress in the military mind.

A novel question has been started for Medical jurists. A trial took place last Saturday, in which the defendant in an action for breach of promise of marriage put in the plea that he had been sincerely attached to the plaintiff, and did not seek to cast the slightest reproach upon her conduct, yet he was suffering from a pulmonary disease at the period when the marriage was broken off, and for some time previously, which, according to the opinion of his Medical attendant, Dr. Mackie, rendered any excitement dangerous, and he was consequently unable to keep his engagement. Dr. Mackie stated that the defendant was so far gone in consumption, that the slightest excitement would in all probability be fatal to him. Dr. Walshe also gave evidence to the effect that he had seen the defendant, and that his health was in such a state that he could not be expected to live many months. Mr. Justice Erle said this was the first time he had seen such a plea; but it would probably have been accepted by the jury if the plaintiff had received notice of the state of health of the defendant.

Mr. Monk, of Preston, is entirely exonerated from the charge of poisoning. Dr. Taylor found only a small quantity of mercury, which might have been properly prescribed. Three medical men deposed that the prescriptions for the deceased in Mr. Monk's book were suitable for his disease. The jury returned a verdict of "Death from natural causes." It is to be hoped that the other charge of will-forgery will be disposed of in a manner equally satisfactory.

Mr. Deane, whose extraordinary neglect we noticed in a previous number, in leaving a woman undelivered after the head of the child was born until she died, has been sentenced to imprisonment for eighteen months. It is said that Mr. Deane is a member of the College, though his name does not appear in the Directory. Whether M.R.C.S. or not, however, no one can deny the truth of Mr. Justice Willes's remarks. He said, Mr. Deane "appeared to have been a man in an honourable profession—a profession no man was more disposed to hold in honour than himself, but by the verdict of the jury he had been convicted of gross neglect in the management of the case of that unhappy woman, by which she had come to a most painful death. He must also remark that punishment was inflicted by law, not so much for causing pain to the individual as to offer a warning to others, lest they should fall into an offence of the like description, and it was a truism to say that the Profession to which he belonged scarcely required, as it appeared by his unhappy case, such a lesson as his punishment must read. He did not, therefore, think it necessary to pass a sentence which should rank among the higher grades of punishment inflicted upon persons who took away the lives of others—that of penal servitude; but he must pass a sentence of long imprisonment, otherwise he should not mark the sense he entertained of the awful responsibility which a man incurred by his culpable neglect of a person in her most critical moment, who had confided her case to his skill and his care."

The Birmingham controversy still continues. A large public meeting of the subscribers to the Hospital has been held, and it was then resolved—"That it appears to this Meeting that the recent proceedings of the Council in their endeavours to invalidate Mr. West's election are in direct contravention of the laws of the Queen's College and Hospital, and that a Committee be appointed to confer with the Council with a view to avert the disastrous consequences which must ensue from any antagonism between the Subscribers and the Council; and that such Committee report to this meeting on Friday, the 18th instant." A compromise has been suggested in the appointment of both Mr. West and Mr. Gamgee as surgeons. Next week we shall be able to record the result of the conference.

A trial took place at Guildhall last Saturday, which suggests the very important question in Medical ethics—How far should the Surgeon to a Railway-company become the agent of the Company, by offering compensation to injured persons? A man, named Brown, was injured in a collision on the South-Eastern Railway, on the 30th of October. He swore that on the 4th of November Mr. Adams, Surgeon to the London Hospital, called on him from the Company, and said

"that he wanted the matter settled, and that £5 would pay for my coat; he said also that he would pay my medical expenses; he gave me a cheque for £6, and I signed a receipt. I can hardly call to mind all that passed, I was so confused and uncertain; this state exists still. The same evening I tried to write to Mr. Adams; I could not do so without help. The next day I sent a letter to Mr. Adams. The letter was here read, and in it Mr. Brown stated that he had been so taken by surprise by Mr. Adams, that he probably should have accepted even the tithe of what he had if it had been offered, and that his injuries were serious." Evidence was given to prove that the man's spine had been injured, and that he was not likely ever to be permanently better. The defence was, that the plaintiff had accepted a sum of £6, "in satisfaction and discharge of all claims for compensation in respect of the injuries sustained by him;" and the counsel for the Company relied mainly on the contract made with Mr. Adams. This gentleman was called, and the following is the account of his examination, as given in the *Times* report:—

"I am one of the senior Surgeons to the London Hospital, and am also Surgeon to the Company. I called on the plaintiff, and said, 'I am come to see you about the collision near Deptford.' I asked what injury he had sustained, and said I had come to offer compensation. He said, 'In the first place, my coat is torn.' I said, 'Will a sovereign do for that?' He said, 'Yes.' I said, 'What is your personal injury?' He said, 'I am bruised in the side.' I said, 'What shall I give you for that—£5, and the payment of your medical expenses?' He said, 'Yes.' I wrote a cheque for £6. He crossed it, and at my request signed a receipt. He walked with me to the door, and pointed out my way to Bermondsey-street. He was perfectly self-possessed, and knew what he was doing.

"Cross-examined by Mr. Hawkins: My first duty is to see patients, and then to settle with them. I do not examine them excepting in serious cases. I have endeavoured to make bargains with sick persons in bed, but, to the best of my belief, never except in the presence of their Medical man. Mr. Brown and Mr. Bodkin had attended him. I took no trouble to ascertain the extent of the injury in his side. My visit lasted ten minutes. It was a very serious accident; one had his leg broken, one his jaw fractured, one his nasal bone broken; many were hurt. I do not know how many bargains I made. I carry a bundle of receipts about, and I assure you it is a very laborious task.

"Re-examined: Brown's seemed a slight case."

Mr. Adams is a gentleman so universally esteemed and respected in the Profession, that we trust most sincerely the above must be a very incorrect report of his evidence. We shall be very glad to insert any explanation or correction he may offer, and some explanation is certainly required. It is perfectly right of a Railway Company to employ a Medical man on whose judgment they can rely to protect them from fictitious claims, but the Profession will fall sadly in public estimation, if the first men in our ranks appear in any other than their Medical character in the house of suffering and distress.

General Wilson, in his official account of the siege of Delhi, bears the following testimony to the excellent arrangements of the Medical department:—"At such a trying season of the year, and in a notoriously unhealthy locality, the sickness and mortality have, of course, been heavy. In addition, the hospitals have received almost daily accessions of wounded men. The labours of the Medical department have, therefore, been unceasing; notwithstanding, there has not been at any time the slightest failure in the arrangements for the care and comfort of the very numerous patients." Nor would there have been in the Crimea, if the Medical Department had been left alone, untrammelled by incompetent or inactive officials in other departments. It was left alone at the *end* of the war, and worked admirably when the hard lesson had been learned, —"We must leave the doctors to do as they like!"

The following Medical officers appear in the list of killed and wounded among the force employed before Delhi:—Assistant-Surgeon S. Moore, Her Majesty's 6th Dragoon Guards, died in camp, June 2, of a wound received in action at Ghazeeoodeen Nuggur, May 31. Surgeon J. Coghlan, Her Majesty's 78th Regiment, died of cholera in camp before Delhi, June 9. Assistant-Surgeon S. A. Lithgow, Her Majesty's 75th Regiment, slightly, June 8. We have no account of the medical casualties in Havelock's force except the following: "On September 29, at Lucknow, while serving with the leading column under General Havelock, Robert Henry Bartrum, Assistant-Surgeon H.E.I.C.S., 3rd Oude Irregular Infantry, aged 26. He was shot dead at the gate of the Residency, within a few hundred yards of where his poor wife was expecting him." Yet Medical officers are not combatant officers, and are denied substantive rank!

REVIEW.

On Epilepsy and Epileptiform Seizures; their Causes, Pathology and Treatment. By Edward Henry Sieveking, M.D. Physician to St. Mary's Hospital. Pp. 267. London: 1857.

The nervous phenomena to which the collective name of epilepsy is now applied, have been observed, although under different appellations, in all ages of the world, and they spare neither age, nor sex, nor nation. The disease presents itself sometimes in a typical form, exhibiting a constant series of symptoms, but more frequently it is marked by such irregularities, either in the redundancy or the deficiency of its characteristic features, that it often becomes difficult to determine what is meant by a true attack of epilepsy, and how far certain abnormal, nervous, and spasmodic affections, really deserve the name. In the usual form of the disease the patient falls down unconscious to the ground, striking against anything that may happen to be in the way, or perchance slipping into the water, or into the fire; he becomes convulsed with violent, irregular, and spasmodic contortions of the voluntary muscles; he foams at the mouth, and bites his tongue; his face is livid from the congestion of the vessels of the head; but after a time these formidable symptoms entirely subside, the patient sinks into a placid sleep, and he wakes to consciousness and perfect health. As in the discharge of a Leyden phial, the overcharged system has relieved itself by a sudden and violent effort from the load which has oppressed it, and the equilibrium being restored, tranquillity returns. Formidable as are the symptoms of a fully developed epileptic fit, the affection is seldom fatal until, by its long continuance, it has exhausted the powers of the patient, or, having become associated with hopeless insanity, it becomes the forerunner and the harbinger of a sure, though perhaps rather tardy death.

But besides the fully developed epileptic paroxysm, there are a multitude of other seizures of an anomalous character, associated sometimes with hysteria, sometimes with apoplexy, sometimes depending upon organic disease of the brain, sometimes symptomatic of intestinal disorders; seizures, also, which, under the name of convulsions, sweep off a great number of the infant population; and other forms of partial or general nervous spasm, which have more or less of an epileptic character. To all these incongruous forms Dr. Sieveking proposes to extend the definition of epilepsy, which, in its intimate nature, is an irregular and uncontrollable action of certain muscles, depending probably upon some molecular change in the nervous fibrillæ of the brain and upper part of the spinal cord, but which condition has not yet been developed and demonstrated by the scalpel of the anatomist, or the powers of the microscope.

Dr. Sieveking has taken great pains to collect all the available statistical information upon the prevalence and mortality of epilepsy as compared with other diseases; but the results, as he admits, are unsatisfactory, because epilepsy and convulsions are described as separate diseases, and the consequence is that the mortality of epilepsy is shown to be much smaller than it really is. The only important information respecting

the comparative frequency of cases of epilepsy among the population is obtained from the reports of the army in this country; but as all persons who are epileptic are rigidly excluded from the service, the results are not satisfactory even in this limited department. In France the number of male epileptics is partially ascertained by the conscription lists, those who are so affected being exempted from military service.

It is natural to suppose that a disease presenting such prominent manifestations should have excited the investigations of physicians as to its proximate cause; but hitherto all attempts to connect the phenomena observed during life with the post-mortem appearances have been unavailing, and we can no more point out the lesion which gives rise to the epileptic paroxysm than we can localize the morbid agency which induces tetanus, hydrophobia, neuralgia, or hysteria. In all the post-mortem examinations which have been made in the case of epileptics, no specific morbid change has ever been discovered in any other organ except the brain, and in it the appearances have been neither constant nor satisfactory. In some of the worst cases, the necroscopic phenomena have been altogether unimportant, while on the other hand some of the most serious diseases of the brain have not been attended with epilepsy: and in those cases, which are not infrequent, where congestion, or inflammation, or thickening of bone, or thinning of the cranium, have been found, it must of course be doubtful whether these indications are to be viewed as causes or as consequences of the disease. But it may also be asked, even admitting that such appreciable physical causes may induce the epileptic convulsion, how it happens that a *constant* source of irritation can be attended with a transient and sometimes infrequent morbid manifestation? If pressure be made upon the brain by an accident convulsions will ensue, and when the pressure is removed, the convulsions will cease; but how can a morbid growth of bone or a thickening of the intracranial epiphyses produce *intermittent* convulsions? This part of the subject has also been carefully studied by Dr. Sieveking, who shows the unsatisfactory character of the appearances presented in the post-mortem examination of epileptic patients. Of six cases of fatal epilepsy, examined and recorded by Dr. Boyd, two presented cerebral wasting; in one the skull was unusually thick, in one there was fluid on the brain, in another the brain was indurated, and sharp bony projections existed on the outside of the skull; in another was congestion of the brain, in two the brain was above the average size, the one being firmer the other softer than natural. In nine other cases recorded by the same observer, there was the same diversity in the appearances, and in six of the cases the weight of the brain was above the average, in two it was below it, and only one was normal in this respect.

Dr. Sieveking attaches some importance to the views of Wenzel, who regards the pituitary body and the pineal body as being probably the seats of disease in epilepsy, although Rokitansky does not confirm this opinion, and has failed to discover disease of these organs as a constant concomitant. An abstract of twenty cases by Wenzel is given by Dr. Sieveking, and in all these, the pituitary and pineal bodies were more or less diseased, although it must be admitted that the morbid appearances presented are very various and scarcely admit of classification. But the same difficulty exists in classifying the morbid appearances of the supra-renal capsules.

While so much doubt and uncertainty exist as to the cause of epilepsy, it is of course difficult to devise any rational cure for the disease; and experience has hitherto failed to discover any specific which can control the epileptic paroxysms, or alter the morbid condition of the nervous system on which they appear to depend. Dr. Sieveking takes an eclectic view of this part of the subject, and rejecting alike the dogmatic views of those who would adopt only depletory measures and of those who would recommend stimulants, he advocates the employment of local depletion to relieve the congestion of the brain, while he would support the general powers of the system to guard the body against future attacks. General depletion he condemns, but he believes that in other times than the present and other localities than in London, such a method of treatment may have been beneficial. Blisters and setons may be applied to the vicinity of the head, the bowels should be kept open, iron and zinc should be given as tonics, and the diet should be carefully regulated, avoiding undue stimulation on the one hand, and guarding against the privation of food on the other, in consequence of the asthenic nature of the affection in itself, and the generally low type of disease which prevails in the present day.

The above is a brief and imperfect outline of the chief subjects discussed in Dr. Sieveking's able work, which we recommend to the Profession as containing a great amount of valuable information, put together with great skill and learning, and exhibiting no small amount of original observation.

PROGRESS OF MEDICAL SCIENCE.

Selections from Foreign Journals.

ON THE DETERMINING CAUSES OF HYSTERIA.

By M. BRIQUET.

M. Briquet, in continuation of former papers on Hysteria (see page 458), now enters upon the consideration of the determining causes of the affection. The authors of elementary works, compendiums, and dictionaries usually treat the etiological portions of their subjects as mere matters of form, from which little instruction is derivable. M. Briquet is, however, of a completely opposite opinion, feeling convinced that etiology can furnish the most important data upon the nature of diseases, and on their consequent treatment.

Led away by their doctrinal opinions, the ancients recognised special modifications in the conditions of the genital organs as alone capable of giving rise to hysteria; these modifications acting by increasing sexual desires, or impeding their gratification, by disturbing menstruation or by giving rise to leucorrheal discharges. To this was their etiology confined, and their successors, faithful interpreters of the Hippocratic-Galenic doctrines, in nowise enlarged it. But from the periods of Willis and Sydenham, it began to be frequently remarked that hysterical symptoms followed the operation of circumstances, such as long-continued misery or depressing emotions, quite beyond the circle traced out by the ancient masters. In proportion as true observation made progress, such facts became multiplied: but scientific prejudices are long in giving way, and it was thought better to regard these circumstances as acting as simple motors, than that physiological relations existed between their mode of action and the nature of the disease they gave rise to. They were therefore termed occasional causes. Under cover of this kind of compromise, authors exhibited a great facility in receiving various modifying circumstances as occasional causes of hysteria; and at least a hundred such have been admitted in the writings of the most classical writers. It is very certain that some of these circumstances have been raised to the rank of causes, merely because hysteria has been once seen to follow: *post hoc, ergo propter hoc;* and it is equally evident the greater portion are simply the occasions of the return of paroxysms of hysteria, and not the inducing causes of the disease itself. Lepois and Willis had already, in their time, sought to exhibit the vagueness of this etiology, and had insisted on the relations which should exist between the true causes of hysteria and the nature of this disease, by showing that the true determining causes were all direct or indirect modifiers of the encephalon and its prolongations. They, however, made but few converts.

M. Briquet, wishing to dispel the uncertainty that prevailed, made a careful study of the circumstances which could be considered as having given rise to the hysteria in the cases of 430 hysterical females. The following is the list of what may truly be called determining causes, having given rise directly to the hysteria without other intervention. These different causes are ranged in the order of the powerfulness of their operation.

1. Menstrual disturbances, usually with chlorosis, in	48
2. Domestic or family troubles	43
3. Fear	35
4. Annoyances more or less considerable or prolonged	28
5. Strong moral emotions	30
6. Grief from the loss of near relatives . . .	26
7. Debility from long illness or active treatment .	21
8. Ill-treatment of children by parents . . .	19
9. Absence from home, with annoyance from menial servitude	15

10. Fatigue or excessive labour, combined with annoyances	16
11. Reverse of fortune	16
12. Disappointed affections and inclinations	15
13. Sudden suppression of menses	15
14. The sight of others during hysterical paroxysms	9
15. Pregnancy	6
16. Bleeding	4
17. Magnetisation	2
18. Attempt at robbery	2
19. Abuse of coitus	2
20. The first menstruation	1
21. Uterine disease	2

Upon the whole 430 hysterical patients 378 were found to have been subjected to the influence of determining causes prior to the invasion of the disease. Among the 52 others, 32 became the subjects of hysteria at too early an age to be able to indicate the causes, while 20, who were sufficiently old to do so, were unable to refer the disease to any appreciable determining cause. These results agree with those obtained by MM. Georget and Beau at the Salpétrière, 20 years since. Thus it may be considered as a general rule that hysteria in the very great majority of cases is the result of an appreciable determining cause; and, consequently, however predisposed a woman may be, it is almost always requisite that there should be also present an accidental circumstance in order that the disease may be induced. Experience shows that in the case of children this accidental cause is usually very powerful, hysteria occurring in them as a consequence of ill-treatment, fear, and very strong moral emotions. Experience proves also that the modifying circumstances which produce hysteria, commencing with a convulsive paroxysm, are always very energetic and frequently of short duration; while hysteria coming on slowly and gradually is almost always the product of causes of prolonged duration. Some of these have lasted for weeks, while others have continued for a year before they have produced their effect. As a mean term we may fix three or four months as the necessary time before a woman subjected to the operation of one of these causes will begin to present the signs of hysteria.

Although it would be unphilosophical to infer that these conclusions derived from hospital practice are applicable to women in a superior condition of life, yet the difference is not so great as might be supposed. Among the facts collected by Landouzy from the writings of those who practised among a higher class, we find that of 60 cases in which the determining cause was indicated it proved to consist in fear in 15, disputes and moral emotions in 21, family misfortunes in 10, and annoyances in 6. The sole difference in fact among the poor and rich consists in the degree of action of the modifying circumstance. Acting upon the less sensitive natures of the common people, it requires to be powerful: while to operate on the impressionable economy of the woman of the world, it need not be very powerful to produce much effect.

If, finally, we recapitulate the mode of action of the true determining causes of hysteria, and examine which are the organs these influence, we come to the following conclusions:—

1. More than one half the cases of hysteria result from causes which act on the nervous centres, disturbing their functions in consequence of the too vivid, or the painful impressions they give rise to. 2. More than a fifth are the result of circumstances which enfeeble the economy, alter the constitution of the blood, and render the nervous system more impressionable, when it has become less capable of resisting the disturbance induced by these causes. These causes, which act on the entire organism, were regarded by the great observer, Sydenham, as endued with the power of disturbing the economy by vitiating what he termed the animal spirits. Raulin, one of the most judicious of physicians, insisted on this description of causes, which give rise to what he termed a general cachexia. 3. Nearly a sixth of the cases result from causes acting on the digestive organs. Cullen certainly exaggerated the number of these when he maintained that hysteria most commonly arose in the stomach. 4. At most, one-eighth results from causes acting on the genital organs, including the diseases of these organs. 5. Some cases, which are too few in number to be classed, depend upon causes acting upon the external integument.

Such is the assemblage of modifying circumstances which may directly produce hysteria. On reviewing them we can understand with difficulty how it came that the genital organs have been made to play so important a part, while they are evidently the last in their etiological influence. In place of being produced by deprivation of pleasures, hysteria arises from long-continued moral and physical suffering. So far from its cause being a mere negation, it is a sad realisation of suffering.—*Union Médicale*, No. 105.

EXCERPTA MINORA.

Alum Injections in Dysentery.—In a memoir addressed to the French Academy, and upon which M. Piorry reported favourably, M. Ratton relates that in two epidemics of dysentery, occurring in the Department de la Sarthe, and during which he has collected more than 300 cases, he found alum glysters of great service, exerting an eminently astringent and disinfecting power, and when used early soon cutting the disease short. The dose, up to 10 years of age, was from 15 to 45 grains, and for adults from 1 to 2 drachms. After the administration the patient should lie either upon his belly or his right side.—*Bull. de l'Acad.* t. xxii. p. 1011.

Belladonna in Strangulated Hernia.—M. David relates two cases in addition to those that have been already published in which the administration of belladonna internally was speedily followed by a reduction of strangulated hernia, that just before seemed to call for operation. He gave a spoonful of the following mixture every half-hour:—Syrup of orange-flowers, ʒj.; water, ʒij.; ext. bellad. 4 grains. In one case three, and in the other four, doses sufficed.—*Gaz. Hôp.* No. 120.

Lead-Poisoning of Lace Cleaners.—The death of a young woman at Paris employed in lace-cleaning, and in whose viscera after death notable quantities of lead were found, has given rise to an investigation as to the means employed. It has been discovered that soiled lace is cleaned by a process imported from Brussels, and which consists in giving to the flowers a factitious and temporary whiteness by repeatedly dusting them with white lead. All the workwomen employed in fixing flowers so cleaned upon net suffer more or less from the emanations of the lead; and several have been obliged to abandon the business.—*Journ. de Chir. Méd.*—December.

Spermatic Hydrocele.—The following are the conclusions M. Sédillot comes to:—1. The name spermatic hydrocele is that which is best suited for this form of scrotal tumour, in consequence of its nature, and the impossibility usually of distinguishing it from ordinary hydrocele. 2. It seems to be dependent upon the obliteration of one or more of the efferent canals of the testis. 3. The presence of a cyst, primarily developed around the effused products, explains the difficulty of the treatment. 4. Whenever the fluid of hydrocele is lactescent it should be most carefully examined by the microscope, and carefully observed in order that pathognomic signs which do now exist may be sought for. 5. The prognosis must be careful, in consequence of the disposition to relapse, and the persistence of a portion of the tumour. 6. The treatment chiefly consists in the induction of active inflammation, and even commencing suppuration within the spermatic cyst, in order to determine its obliteration.—*Union Médicale* 147.

Phosphoric Acid in Secondary Syphilis.—Dr. Stössel having employed this substance with permanent good effects in three cases, recommends its trial to practitioners, when the employment of the more certain therapeutical agents, mercury and iodine, is contraindicated. He explains its beneficial agency by the fact that in certain cases of syphilis the amount of phosphorus contained in the organic tissues becomes diminished.—*Wien Wachenschrift, No.* 27.

Hydrophobia in Africa.—In conversation with some of my friends here I learned that Maleke, a chief of the Bakwains, who formerly lived on the hill Litubaruba, had been killed by the bite of a mad dog. My curiosity was strongly excited by this statement, as rabies is so rare in this country. I never heard of another case, and could not satisfy myself that even this was real hydrophobia. While I was at Mabotsa, some dogs became affected by a disease which led them to run about in an incoherent state; but I doubt whether it was anything but an affection of the brain. No individual or animal got the complaint by inoculation from the animal's teeth; and, from all that I could hear, the prevailing idea of hydrophobia not existing between the tropics seems to be quite correct.—*Dr. Livingstone's Travels in Africa.*

OUR GREAT ONES OF THE PAST.

MEN OF THE BRITISH SCHOOL.—No. VII.

WILLIAM HARVEY.

Concluded from page 430.

At the close of the last article we discussed the claims of Mr. Gamgee's dead friend Ruini, as the discoverer of the circulation of the blood. We showed that Ruini made no such discovery, but that he had worked out pretty clearly the geographical anatomy of the circulatory system, and not a whit more.

After Ruini's claims are set aside, it is not of much moment to refer to other presumed discoverers, since none approach him. But Fahizzio, who was a good detail man, may be named. He, seeing the valves in the veins, noted that such valves could only have one function, viz., to prevent return of blood, and to hold on a current towards the heart. This detail assisted Harvey incidentally. Realdus Columbus may also be named, for he knew that blood from the two cavæ passed through the right auricle into the ventricle, thence to the lungs, thence to the left side of the heart, thence through the arteries, all through the body. But Columbus had no conception that the blood thus circuited by the help of the heart-stroke, nor had he any idea of the double line of rails, and the outgoing and ingoing currents of *one* blood. However, an incidental argument of his also assisted Harvey, to wit, that such a large quantity of blood as must go through the pulmonary artery, could never be required for the mere substantive nourishment of the two lungs. Cæsalpinus of Arezzo may, lastly, be honoured with name in our discovery-list. Cæsalpinus knew the geography of the circulatory system to about the same extent as Columbus. He knew, further, that if a vein is compressed it swells on the side of the ligature farthest from the heart. Finally, by a strange figure of speech, the meaning of which he clearly did not comprehend, he used the magic word "circulation." "Huic sanguinis circulationi ex dextro cordis ventriculo per pulmones in sinistrum ejusdem ventriculum, optime respondent ea quæ ex dissectione apparent." That he did not comprehend the meaning of the circulation, and that his speech is intended to be figurative and incidental only, is clear from the facts that Cæsalpinus, as well as Rudio, held the old dogma that the blood percolated through the septum ventriculorum; that he found in the liver a plexus of vessels, from the which he believed all the vessels sprung; and that he thought during waking hours the blood moved to and fro in the same vessels, and that during sleep there was a return or influx of blood towards and to the heart, in which the whole mass of fluid for the time congregated, to start out on its oscillating journey as daylight recommenced.

We are tired of this controversy; whoever wishes to deimmortalize the greatest English Esculapian whom time has brought forth, may refer for his unsatisfactory task to William Hunter's Introductory Lectures, and to the Italian edition of Sprengel's History of Medicine, by Arrigoni and Dr. Francesco Freschi (vol. iii. p. 359), in which they will find the discovery of the circulation of the blood as "usurped" by the English Harvey, stated in all the force of hostility, and the narrowness of sophistical criticism. Harvey's true claims, however, remain unaltered; till he came no one knew the doctrine of the circulation; when he made it known all wondered; the most skilful and learned anatomists disputed it altogether, and none believed who had passed their fortieth year. Harvey himself was thirty-seven when he first began to teach his view concerning the circulation.

From 1626 to 1634, Mr. Paget's Records of Harvey show him occupied about sundry matters of business in connexion with Bartholomew's Hospital. In March 1626 he made suite to have a house in West Smithfield, late in the tenure of Widow Allen deceased, according to a former grant; and in July of the same year it was arranged that the said Dr. Harvey shall have "his stipend, beinge xxvld. p. ann., augmented to the some 33ld. 06s. 08d., in consideracon that he doe relinquishe all his claime of any form^r graunt of a howse in Smithfield, late in the tenure of Widowe Allen, which was ordered for him, whoe hath refused to take the same uppon condicons as this court hath thought fitt."

In $16\frac{32}{33}$, month of January, there was another message from Harvey to the court of Bartholomew's Hospital, stating that he is commanded by the king to attend the Duke of Lennox in his travels beyond the seas, and therefore desireth that the court would allowe of — Smith, Doctor in Physic, for his deputy. The court evidently did not like said Smith; and in 1631 Richard Andrews, Doctor in Physic, had the "rev'con next avoidance, and place of phisicon to this hospital, after the death, resignacon, or other dep'ture of Doctor Harvey, now physicon to this hospitall, late sworne Physicon in ordinary for his late Ma^ties howsehold, with the yearly stipend thereunto now belongenge."

At another court in January, 1633, certain complaints are made against Harvey. He could not constantly be present as pleased the Chirurgeons, but sent his deputy. Upon this it was moved that Dr. Andrewes should supply Dr. Harvey's place on such occasions, but that the order was not to prejudice Dr. Harvey in his yearly fee, or in other respect then aforesaid. It is clear that this order did not fall in with the views of Harvey or his deputy, for on the 13th of May of this year, Dr. Smith enters the "compting house" of the Hospital, and says that as appointed Physician by Dr. Harvey, he wants to tender his services while his master attends the king to Scotland. Dr. Smith is informed that Dr. Andrewes has been appointed by the court as the deputy, nevertheless, if Dr. Smith please to accompany Dr. Andrewes in the business this howse would be very well content. Dr. Smith turns on his heel, and says, "that if Dr. Andrewes were appointed, and did p'forme accordingly; there is noe need of twoe."

In October, 1633, Dr. Harvey met the court in the "compting howse," and forasmuch as he was now appointed Physician to his Majesty, and thereby tied to daily service and attendance on his Majesty, Dr. Andrewes was appointed "immediat Phisicon, with a fee of £33 6s. 8d. yearly." Harvey, however, for his long services, and his being Physician to the King, is to be at liberty to dispose of himself and his time, and to visit the poor no oftener than he thinks fit. At the same court £20 was voted to Dr. Andrewes for past services; and, on the motion of Harvey, £10 in gratuity to Dr. Deputy Smith, who henceforth need "not troble himselfe any more to visite or prescribe to the poore of this Hospitall."

Later in this same month Harvey is again in the "compting howse," now laying before the court certain orders or articles thought fit to be observed and put in practice. The rules are worth introduction, as showing our anatomist's views on Hospital management:—

"1. That none be taken into the hospitall but such as be curable or but a c'taine number of such as are incurable.

Allowed.

2. That those that shalbe taken in for a c'taine tyme be discharged at that tyme by the hospitler, unles they obtayne a longer tyme; And to be discharged at th'end of that tyme alsoe.

In use.

3. That all such as are c'tefied by the do^r uncurable & scandelous or infeccous shalbe putt out of the said howse, or to be sent to an out-howse; And in case of suddaine inconvenience this to be done by the do^r or apothecary.

Allowed.

4. That none be taken into any outhowse on the charge of this hospitall, but such as are sent from hence.

Allowed.

5. That no chirurgion, to save himselfe labour, take in or p'sent any for the do^r; otherwise the charge of the apothecarys shopp wilbe soe greate, & the successe soe little, as it wilbe scandelous to the howse.

Allowed.

6. That none lurke here for releife only or for slight causes.

Allowed.

7. That if any refuse to take theire phisick, they may be discharged by the do^{r} or apothecary or punished by some order.

Allowed.

8. That the chirurgions in all difficult cases, or where inward phisick may be neeessary shall consult with the Do^{r}, at the tymes he sitteth onee in the weeke, & then the M^{r} himselfe relate to the Do^{r} what he conceaveth of the cure & what he hath done therein, And in a decent & orderly manner p'ceed by the do^{rs} dirreccons for the good of the poore and creditt of the howse.

Agreed unto.

9. That no chirurgion or his man doe trepan the head, peirce the body, dismember or doe any greate oper'con on the body of any but wth th'app'bacon & by the direccon of the Do^{r} (when conveniently it may be hadd) & the chirurgions shall thinck it needfull to require.

Agreed unto.

10. That no Chirurgion or his man practize by giveinge inward phisick to the poore, w'hout th'app'bacon of the Do^{r}.

Allowed.

11. That noe Chirurgion be suffered to p'forme the cures in this howse by his Boy or s'rvant w'hout his owne ov'sight or care.

Allowed.

12. That ev'ry chirurgion shall shewe & declare unto the Do^{r}, whensoev^{r} he shall, in the p'sence of the patient require him, what he findeth, & what he useth to ev'ry externall malady; that soe the Do^{r} beinge informed may better w^{h} judgm^{t} order his p'scripts.

The Chirurgions p'test against this.

13. That ev'ry Chirurgion shall followe the direccons of the Do^{r} in outward oper'cons for inward causes, for recov'y of ev'y patient under theire sev'all cures, & to this end shall once in the weeke attend the Do^{r}, at the sett howre he sitteth to give dirreccons for the poore.

Agreed by y^{e} Chirurgions.

14. That the Apothecary Matron & Sisters doe attend the Do^{r} when he sitteth to give direccons & pr'scripts, that they may fully conceave his direceons and what is to be done.

Allowed.

15. That the Matron and Sisters shall signifie & complaine to the Do^{r} or Apothecary in the do^{rs} absence if any poore lurke in the howse, and come not before the Do^{r} when he sitteth, or taketh not his phisiek but caste it away, & abuse it.

Allowed.

16. That the Apothecary keepe secrett and doe not disclose what the Do^{r} pr'scribeth nor the p'scripts he useth but to such as in the Do^{rs} absence may supply his place, & that wth the Doctors approbacon.

Allowed."

In August, 1634, there is a record to the effect that Dr. Clarke is chosen assistant to Dr. Harvey, in place of Dr. Andrewes, late deceased. A further order was also made that after Dr. Harvey, his death or departure, there shall be only one Physician forthwards. This latter rule only held place for a brief period.

About this time Harvey's attention and time seem to have almost altogether been given to his Royal Master, to whom, without doubt, he was sincerely attaehed. Whether his love and respect arose from mere personal like, or from any warm adherency to the Royal policy, is an open question. Certain it is, however, that he took no aetive political part in the stirring affairs of that period.

In 1636 he made the post-mortem examination of the famous Thomas Parr, and recorded the facts of the case. In this same year he left the King for some months, and attended the Earl of Arundel to Germany, and visited several continental towns and cities. Dr. Willis presumes that at this time he gave a demonstration of his views on the circulation at Nuremberg, at which Caspar Hoffman was present, and of all present would not be convinced. We cannot absolutely confirm this statement of the learned biographer.

Returning to England at Christmas, Harvey again took his place by the side of his sovereign, accompanied him to Scotland in 1637, returned with him to London in the autumn, and was present with him at the battle of Edgehill. After this event he seems to have returned to Oxford, and to have resumed his studies, attending meantime the king who held his court at that city. While here, the honorary degree of Doctor of Physic was awarded to him by the University, and in 1645 he was elected Warden of Merton college, whieh office, after holding it for about one year, he had to resign, on the surrender of the city to the Parliament. Sir Nathaniel Brent, who had held the office previous to Harvey, was reinstated.

After the surrender of Oxford, Harvey returned from the Court, not, we believe, to desert his fallen master, but to escape the anxieties and troubles which beset him in that position, and to pursue with more comfort the studies to which his life was devoted. His wife was dead by this time, and he, having now, as it would seem, no home of his own, and having been relieved sometime about 1643 from the duties of Physician to Bartholomew's Hospital, returned to the home of one or other of his brothers, Eliab and Daniel, now with Eliab at Roehampton, and then with Daniel at Combe, near Croydon.

In 1649 he wrote his first famous Disquisition to Riolan Junior, Professor of Anatomy in the University of Paris. This letter was dated Cambridge; but a second disquisition written afterwards to the same anatomist was, in all probability, addressed from London. In these letters he refers to a book which he evidently had in hand, entitled, "Medical Observations," but which to the loss of science never saw the light. The MS. of this work was doubtless left behind him at his death, but has been destroyed, we fear, and absolutely lost to the antiquarian.

While thus removed from the anxieties of public life, he was closely occupied with the contemplation of another natural study, *The generation of Men and Animals*. He completed this work in 1651. He was prompted to its publication by Sir George Ent, who being, as he tells us in the preface of the work, tried with cares, sought to rid his spirit of the cloud that oppressed it, by paying a visit to Harvey, then residing at a little distance from London.

The interview between Ent and the philosopher is very graphic. "I found him," says Ent, "Democritus-like, busy with the study of natural things, his countenance cheerful, his mind serene, embracing all within his sphere. I forthwith saluted him, and asked him if all were well with him? How can it, said he, whilst the commonwealth is full of distractions, and I myself am still in the open sea? And truly, he continued, did I not find solace in my studies, and a balm for my spirit in the memory of my observations of former years, I should feel little desire for longer life."

Discoursing in this manner, and touching on many topics, Ent tells the philosopher that his friends are looking for his further experiments. "And would you be the man," said Harvey, smiling, "who should recommend me to quit the peaceful haven where I now pass my life, and launch again upon the faithless sea? You know full well what a storm my former lucubrations raised." Ent, however, at last succeeds in his request, and promising himself to correct the press, if the precious manuscripts may be confided to his care, he returns home, feeling like another Jason loaded with the golden fleece, and the work on Generation proceeds towards the light.

In 1652 the College of Physicians did themselves the honour to erect a statue of their immortal colleague in College-hall, then situate in Amen Corner. Harvey, on his part not amiss, commenced to build a new College-hall, which was completed in the early part of 1653. On February the 2nd of the same year the new College was opened with a magnificent entertainment at the founder's expense. To the library also he added books, and to the museum various articles of museum kind. In the following year the College offered him the Presidency, but he declined the proffered honour; his increasing years prevented him, so he felt and said, from duties so onerous. How well if men lesser than Harvey had the same appreciation of incapacity and firmness of declination, when honours are proffered to bare seniority!

About this time Harvey wrote letters on various subjects to continental friends of distinguished position. These letters, some of which are retained, breathe the candid spirit of the veteran anatomist. John Dan Horst, Physician to the Court of Hesse Darmstadt, writes to him about the lacteal veins, and requests him to attempt a solution of the true use of these newly discovered ducts. "No," says the old man, "no—I would, but I cannot; it is an undertaking of greater diffi-

culty than comports with the old man far advanced in years, and occupied with other cares."

We have thus sketched out the leading points in the life history of Harvey. Let us now take up the *personnel* of the man, and view him as one would a friend not yet lost to us, but near to the grand ultimatum—the Euthanasia.

His personal appearance is gathered from Aubrey. He "was not tall, but of the lowest stature, round-faced, of olivaster, like wainscot, complexion; little eye, round, very black, full of spirit, his hair black as a raven, but quite white twenty years before his death. In temper he was choleric, like the rest of his brothers, and in his younger days he wore a dagger, as the fashion then was, which he would be apt to draw out on every occasion," evidently from habit as the fashion also then was. He was, moreover, a proud man in his way, and eminently just—not over generous, but just. He cared but little for the world, nor for what the world said of him; he thought man in general "but a great mischievous baboon." He was willing always to explain, but when he explained a visible fact he would bear no contradiction. For thus he argued concerning those who believed not what they would see. "Even as the waves of the Sicilian sea, excited by the blast, dash against the rocks around Charybdis, and then hiss and foam, and are tossed hither and thither: so do they who reason against the evidence of their senses." With all this he was retired, cared nothing for unseemly applause, and wished not to convince hearers who would not be convinced. When at Nuremberg Caspar Hoffman would not accredit what every one else saw, Harvey laid down the scalpel, and proudly withdrew from the demonstration.

He laughed good-naturedly at mere writers, and at men who might, but did not themselves do what they proposed by mere rule to others. "Lord Bacon," he remarked, "wrote philosophy like a Lord Chancellor." The saying was true, but too severe. Harvey, however, felt that the rules which the Chancellor laid down were but such as he himself had practised. So Baconian philosophy was to him words, such as a lawyer would by occupation preach.

It has been argued that Harvey wrote bad Latin. There is no direct proof of this, but it does not matter either way. What he wrote was understood, which is the great end and meaning of all language; it would have been better, if, like his great contemporary, Shakspeare, he had ignored the dead stuff altogether, and had written in good English.

His handwriting was unquestionably bad—bad as bad could be. Dr. Paget has happily snatched a specimen of this from literary burial. Dr. Samuel Ward, Master of Sidney College, Cambridge, wrote to Harvey, sending him a petrified skull, which had been preserved in the College library. Harvey, at that time Physician to the King, and living in Blackfriars, returned the skull to the College Master with the note, which being interpreted runs as follows:—

> "*M^r Doctor Ward I have showed to his M^ty this scull incrustrated w^th stone, w^ch I receyved from you, & his M^ty wondered att it & look'd content to see soe rare a thinge. I doe now w^th thanks retorne to you & your Colledg the same w^th the key of the case & the memoriall you sent me inclosed hearein thinking it a kinde of sacriledg not to have retorned it to that place where it may for the instruction of men heare after be conserved.*"

In lecturing, Harvey used short notes, and we are indebted to Dr. Paget for rescuing from antiquity another Harveian relic in the shape of a book of rough notes, used for lecture purposes. We take from this work Harvey's mode of describing in "Lecturer's private desk book," a description of the parts on which he was occupied.

"*Serratus Major*

WH *Great Jagged Muscle.*

O. Scapulæ Basi interior coraco

WH △ *Shoulder of Mutton.*"

"*Serratus Minor à forma*

WH *Lesser Jagged Muscle*
Brawn (?) *muscle of a fowle.*

Substratus pectorali
figura triangular.

O. a costis { 2, 3, 4, 5 } *paulo antequam fiant chartilaginei*
6 *raro* (?) *Carneus digitatim.*

sursum obliq. versus articulum angustior reditus fibrarum vario ductu . . . et plures.

D. Scapulæ juxta coracoid. intern.
Tendine partim nervoso carnos.

. . . . . .

Usus. Varie scapulam adducit
et pectus elevat
unde Tabidis et magnis respir.
sursum Humeris elevatis
unde alii . . . . . ."

"The muscle here described is obviously that which is now called the Pectoralis minor. The extract is sufficient to show, how completely the mode of describing a muscle by its origin, insertion, and use, had been established in Harvey's time."

"To some of the muscles he gives quaint names. Thus to the *Pedis Tibialis posticus*, he adds 'WH Tiptoe muscle.'"

The letters WH signify that the idea of name was his own.

In private life he made no enemies, and in public life he was a lion, always in good humour. He was rather revered than loved. He commanded a respect which he did not systematically court. He replied to few opponents and to none who were not strictly courteous. "Detractors, mummers, and writers defiled with abuse, as I resolved with myself never to read them, satisfied that nothing solid or excellent, nothing but foul terms was to be expected from them, so have I held them still less worthy of an answer." How great an element of success Harvey held in his hand when he refused to read detractions, none but men of his build can say. There is a coolness about the so doing which outbids everything. The man had nothing to be angry about with his detractors, for he knew not what they had said as they knew not what they did. In the absence of discussion the world whistled its own tune, and the snarling objectors stood fool-stricken.

His absolute coolness of decision, notwithstanding his choler in unguarded moments, was shown in every act of his life. He observed accurately in vivisections, which no man but a quick collected man can do. He would not publish till it pleased himself and his purpose, though men were bellowing against him every insinuation, and friends were imploring to see him in print. He could refuse honours if he felt he could not perform duties; and when a battle was raging at his back at Edge-hill, and the young Duke of York was by his side to be out of harm's way, he could take out a book and read as he sat. A parliamentary cannon-ball ploughed up the ground near him, which led him to take a safer position with his royal charge; then he took out his book and read again.

He was too conscientious and independent to be sycophant to any man. True, his dedication of his book to King Charles is overdone for these days. But here superstition guided his pen. He believed in "the divinity that doth hedge about a king." The belief was common, and in all royalists of his day was an article of faith still more firmly imbedded in the mind, from the position of the monarch and the political rancour of the time. Moreover the king was a king to Harvey; and how many other things soever the king did to deserve his fate, his life might well have been saved for his love of science and his royal patronage of the scientific light of his reign.

Among the brothers Harvey the utmost affection prevailed, and with them William was all in all. William was bad at accounts and bills, so Eliab and Daniel must needs relieve him of these affairs, and leave him to his scientific concerns. Happy William! We wish we had an Eliab or Daniel of the same brotherly turn.

Harvey had no child, and his wife died long before him. He ranks as a first-rate husband, though Aubrey states that he would say of women "that we Europeans knew not how to govern our women, and that the Turks were the only people who used them wisely." Perhaps this Eastern predilection

led him to do what Aubrey also scandalously affirms; to wit, that when the old man felt flesh and blood grow cold, he courted that remedy to restore the expiring flame (in every sense anti-Liebigian), which was once so sedulously applied to a good old king with whom we are all familiar.

The writings of Harvey are remarkable for their precision and for the inductive argument. Practically, he entirely preceded Bacon, and may be looked on as the veritable founder of the inductive philosophy. His writings apply to Medicine in every age, for the man held a key which turned on the future as well as the past. It is not that he described the circulation, but anticipated so much more that to-day his thoughts can be applied to the science of the hour.

Harvey was a prose poet; his allusions to the poets indicate his love for poetry, and many of his sentences show that the poetic spirit was within him. All his writings are poems written straight on.

He has been accused of unfairness to Aselli and to others who were engaged in the study of the lymphatic system. The accusation seems at first blush fair, but read his letter to Dan Horst, and the accusation vanishes. He was too old to investigate the point; his work was done.

His mode of life was simple almost to a fault, and his tendency was to leave the world and commune alone with nature. He preferred to write and study away from the glaring light, and in perfect quietude. Great minds vary in this regard. Bacon thought most evenly and deeply when the melody of sweet sounds was melting on his ear.

His treatment of disease was simple, and the practical routine of his age he practically abhorred. At night he often could not sleep; then he rose and walked about in his night-dress till he grew more calm. When gout attacked him he went on the leads of his brother's house, and putting his feet in cold water held them there till they were well nigh frozen; then returning to his stove he gently warmed the chilled parts, and the fit was over.

In visiting his patients he rode on horseback with a foot-cloth, his man following on foot, as the fashion then was. Among his patients and friends were ranked the noblest of the land; but, as we have seen, he avoided display, and his practice never recovered from the shock it received by the discovery of the circulation. It was happy for him that he could live without practice and have money at his death. His Will, which Dr. Willis has had copied, is too long to be introduced here.

He continued his lectures and attendances at the College of Physicians until a year or two previous to his death, and when near his end was found by Aubrey studying Oughtred's "Clovis Mathematica."

The 3rd of June, 1657, was the death-day of Harvey. He was now seventy-nine. Aubrey depicts the last scene. At ten in the morning, on attempting to speak, he found the tongue refused his bidding. He was conscious, and knew what would come. His two nephews at his request visited him, and received from him some farewell treasure, his watch the one, his signet ring the other. He motioned to Sambroke, his apothecary, to bleed him in the tongue, but the operation was useless. So through the meridian of that day he rested; but it was the end, and the sun declining in the golden west bore with him from earth a brother. Not more gently fell the shadows of that memorable night than the everlasting sleep of William Harvey.

Clothed in lead, and followed long while by his sorrowing colleagues of the Physicians' College, he was borne to burial at Hempstead in Essex. Aubrey helped to carry him to the vault. And there at this hour, says Dr. Willis, lies the lead that laps him, little changed, and showing the outline of the form within.

How much more worthy of preservation these remains, than those brought in our time with so much pomp from St. Helena to a royal sepulchre!

EPIDEMIOLOGICAL SOCIETY.—Dr. Babington, President of the Epidemiological Society, received the members of that Society, and other friends, at a Conversazione, on Thursday last. Upwards of 300 persons, including the leading members of the Profession, were present; and in the suite of rooms were displayed, valuable paintings and prints, objects of natural history, rare chemical productions, specimens of African manufactures, etc.

GENERAL CORRESPONDENCE.

THE ARTIFICIAL MEMBRANA TYMPANI.

[To the Editor of the Medical Times and Gazette.]

SIR,—Inasmuch as Mr. Toynbee's letter, at p. 614 of your current number, is no reply to my arguments against the closed cavity theory, I should be quite justified in leaving it unnoticed, and should do so, were it not that in the cause of truth I have more to say on the subject.

This controversy (originated, be it observed, by Mr. Toynbee) is not to be carried on by what he calls "pungent arrows of satire." Neither the columns of a respectable Medical journal nor the dignity of the Profession should be compromised by acrimonious contention. I wish, therefore, Mr. Toynbee to understand that I retire from the field, if the points at issue between us cannot be discussed in a calm and philosophic spirit. From necessity, though disinclined, I am on this occasion driven to answer Mr. Toynbee's strange assertions, but I trust that all irrelevancy of observation in relation to our differences of opinion may be avoided for the future.

In my reply to his "instalment of justice," I advanced some arguments which appeared to me to be subversive of his closed cavity theory, but I seek in vain in his "Christian-like warning" for anything like a refutation, whilst my precaution against covering over the entire opening is flatly denounced as "an egregious misstatement." This is Mr. Toynbee's method of bolstering up his untenable theory, though I opine it will not satisfy the readers of your journal. But I cannot allow him thus to escape me, and therefore I repeat—1. His theory is untenable, because I can produce all the improvement of hearing of which the patient is susceptible by maintaining the point of a probe on the magical spot, which probe certainly does not close up the perforated cavity. 2. It is untenable, because unless an opening by the side of the cotton is preserved down to the cavity of the tympanum, the good effect is never produced. 3. It is untenable, because patients almost always have the power of temporarily making themselves hear better by blowing through the perforation, *viâ* the Eustachian tube. 4. It is untenable, because when a bubble of air forms in the discharge, success is attained only by the rupture of that bubble, which is distinctly audible to both operator and patient.

But I will interpose another difficulty in the way of Mr. Toynbee's theory. Sir Astley Cooper performed hundreds of times the operation of perforation of the membrana tympani. I say not one word in favour of his indiscriminate operating; but who can doubt that he sometimes succeeded?—and what was the intention of the procedure but to lay open a closed cavity? It has been my good fortune to discover the cases in which Sir Astley succeeded. They were those of patients only in whom perforation had once existed from disease, which perforation had cicatrised and healed over, deafening the patient, until this perforation of Sir Astley reopened the closed cavity. I have such an array of facts and cases in favour of this explanation of Sir Astley's successes and failures from observations and experiments in my own practice, as, when published, will leave no doubt whatever upon the subject.

Before finding myself called upon to reply to Mr. Toynbee I have had to complain of his errors in quoting me, or his unfair criticisms, or both. Such is the case in the present instance. The first paragraph of his letter runs thus—the words in italics are my running commentaries:—

"Mr. Yearsley, in 1848, made the following discovery [*it should be 'made known,' or 'published,' for the discovery was 'made' six years previously, which time it took to mature it*] of a mode of healing perforate membrana tympani—[*it should be treating*, not *healing*. *If I had healed the perforation, I should have made a closed cavity, and deafened my patient.*] A small piece of wool, differing [how we are not told] in size according to the case—[*Yes, Mr. T., you are told, 'differing in size according to the case'*],—and fully moistened in water, is introduced through the speculum to the bottom of the meatus, and adjusted superiorly, inferiorly, anteriorly, or posteriorly, according [how?] to the situation of the perforation and other circumstances [what they are we are not told] con-

nected with the case—[*How? Mr. Toynbee asks. Why, 'according to the situation, etc.' 'the other circumstances' being the calibre of the passage and its length*],—but care must be taken that the entire opening be not covered, otherwise the experiment will not succeed." [An egregious mis-statement.] I make no comment on this remark of Mr. Toynbee, Mr. Toynbee continues his quotations thus :—"It is far from my wish to discourage the attempts of others [why say a word about it, then?] to place aright these magical bits of wool, but truth compels me to add that, simple as it may appear, it is an operation requiring the most delicate tact to manipulate with success, which great experience only can confer." [The interpolation of "*Why say a word about it, then?*" is answered, "*Because, 'simple as it may appear,'* &c."]

With regard to the idea of patenting the artificial tympanum, Mr. Toynbee should remember that it was his own unhandsome conduct, and the conduct of a Parisian, which led me to seek this mode of protection against improper and dangerous appliances, such as the artificial membrana tympani, by which a new and important principle of treatment was liable to be brought into disrepute. By-the-by, I must here correct another of Mr. Toynbee's errors : the cost of the box of tympanums is 2s. 6d., and not, as stated by him, 5s. 6d.

Without fear of being thought to praise himself—far from it—Mr. Toynbee publishes his most minute and particular directions for the application of the artificial membrana tympani. It is quite a relief to find myself for once in unison with him, and jointly therefore we say :—

"Medical man, in whatever part of the world you are, if you meet with this pamphlet or this lecture, you, with *due care, skill, and attention*, may apply the artificial drum, and relieve your patient, deaf from a perforate drum."

Due care, skill, and attention are undoubtedly required for success, in other words, "tact and experience."

While myself expecting justice from Mr. Toynbee, I am always ready to accord it to him, and therefore I hasten to relieve him of the charge of bringing his substitute for the wetted cotton either before the Royal Society or the Medical and Chirurgical Society. In this it appears I have been misinformed, and I am glad to find that his boldness has not extended beyond the precincts of a non-medical institution, the Society of Arts, to exhibit, and seek reward for his piracy of another man's idea.

The term "artificial tympanum" was given to my invention by Dr. Noggerath of Brussels, by Mr. Harvey, and constantly by patients, long before the invention of the substitute of Mr. Toynbee ; critically correct it may not be, but it is not "absurd." And at all events it is as appropriate as "artificial membrana tympani" is to the "toy."

Mr. Toynbee says, "It suits Mr. Yearsley's purpose to take every opportunity to couple his name with mine, by writing about me." This "egregious misstatement" is easy of disproof. The present controversy originated with Mr. Toynbee. The controversy on the treatment of enlarged tonsils originated with him, and with an animus transparent on the title of his communication, for it ran thus :—"Ought the tonsils and uvula to be excised in the treatment of deafness?" instead of "Ought the *enlarged* tonsil or *elongated* uvula to be excised, etc.?" I beg to direct the attention of your readers to my reply to Mr. Toynbee's ridiculous attack upon my practice in the *Medical Times and Gazette* of May 28, 1853. But still further, to show how wide of the truth is his assertion, I may state, that in no publication of mine is Mr. Toynbee's name mentioned ; and why? Because I have always considered that he had forfeited all right to notice, since he had appropriated my idea of the artificial tympanum ; and secondly, because I have yet to learn of one original idea which he has enunciated in practice. Of what avail are numberless dissections, of what use are theories, if they bring us no practical fruits?

There is another assertion of Mr. Toynbee's left now to notice, namely, that a physician experienced symptoms of inflammation of the dura mater from the application of the wetted cotton. For the present I merely say the statement is untrue, and I will prove it.

I can hardly think that the readers of your Journal will place Mr. Toynbee on the pinnacle of orthodoxy which he arrogates to himself. His onslaught on all the aural Surgeons of London, Paris, and Vienna, is a piracy of the works of Hoghton and Colston, who demolish us in precisely similar language. Never was exhibited a better illustration of *intra-professional* quackery. We must all abide by the judgment of our Profession, and time will find us all out. But it should be known why Mr. Harvey is dragged into the *mêlée*. That gentleman, at the Medical Society of London, had the candour to give his opinion in favour of the artificial tympanum, which, like Mr. Pilcher, he had found far more useful than the artificial membrana tympani of Mr. Toynbee. *Hinc illæ lachrymæ!* His anathema against excision of enlarged tonsils, and against catheterism of the Eustachian tubes, only shows how slow some men are to adopt improvements when they do not originate with themselves. The first of these operations is universally practised by every operative Surgeon, and by Syme is quoted as one of the great improvements of modern surgery ; the second is the only certain means we have of diagnosing the condition of the Eustachian tube, and its permeability.

None of your readers will suppose that Thomas Hood shared in the satire conveyed by the words he put into the mouth of the quack vendor of ear trumpets in his "Tale of a Trumpet!" When he speaks from his own mouth, what says he of the advocate of removing diseased tonsils and of catheterism of the Eustachian passages?

> "In short, she was twice as deaf as deaf Burke,
> Or all the deafness in Yearsley's work,
> Who, *in spite of his skill in hardness of hearing*,
> Boreing, blasting, and pioneering,
> To give the dunny organ a clearing,
> Could never have cured Dame Eleanor Spearing."

In thus naming me as a most successful practitioner in my specialty I can well afford to share with others in the hilarity excited by reading Mr. Toynbee's quotation of the poet's witty sallies. But why not have finished the quotation, which runs thus :

> "Why, I knew a deaf Welshman who came from Glamorgan
> On purpose to try a surgical spell,
> And paid a guinea, and might as well
> Have call'd a monkey into his organ!
> For the aurist only took a mug,
> And *pourell in his ear* some acoustical drug,
> That instead of curing him deafen'd him rather,
> As Hamlet's uncle served Hamlet's father!
> *That's the way with your surgical gentry :*
> And happy your luck
> If you don't get stuck
> Through your liver and lights at a royal entry,
> Because you never answer'd the sentry!"

Yes, herein lies the difference between Mr. Toynbee and myself. He treats deafness through the meatus. I treat it through the throat and Eustachian tube, which latter Mr. Toynbee, by another untenable theory, would fain close against us for ever.

And now I take my leave of Mr. Toynbee, willing to resume the calm discussion of scientific questions, but not to indulge in personalities. I am, &c. JAMES YEARSLEY.

TARAXACUM NOT A FALLACY IN TESTING FOR MORPHIA.

[To the Editor of the Medical Times and Gazette.]

SIR,—The last letter by your correspondent on this subject relieves me from the necessity of discussing the taraxacum question any further ; for, if I understand it properly, I am altogether acquitted of the charge of having confounded taraxacum with morphia, by the avowal that I have not had a mixture containing taraxacum at all. Nevertheless, as the facts of the matter appear to be in danger of being entangled in a multitude of words, I will, as briefly and as simply as possible, place them before you. I am bound to do this, not only for my own sake, but also for the sake of the science of the question.

As far back as September last, a letter appeared from your correspondent, saying that in my hands taraxacum had proved to be a source of fallacy in testing for morphia. Some time after that another letter appeared from the same correspondent, affirming that if I had used proper caution and skill such a fallacy could not have arisen. When it came to my knowledge that those letters had been written, I replied to them by saying that I had not confounded taraxacum with morphia or with opium, and that the error into which your correspondent had fallen was occasioned by his not knowing all the facts of the case ; and I detailed those facts, and gave an account of the properties of the medicines which I had examined. To that letter your correspondent now replies in

a somewhat angry tone, and tells me that I have not had or examined a taraxacum mixture at all.

Now, Sir, whether this be true or not is a question which I will not enter upon, for it is altogether apart from the matter at issue; besides which, I can add nothing to the description which I have already given you of the properties and reactions of the medicines which I received. It is, however, enough for my purpose that this very admission by your correspondent is sufficient to show that the charge against me of having confounded taraxacum with morphia is altogether unfounded; for if that which I tested did not contain taraxacum, it is clear that I could not have mistaken that drug for opium.

A few words more, Sir, and I shall have done. Your correspondent has fallen into another error when he supposes that my testimony at the Coroner's inquest was to the effect that I had obtained a grain of opium from the stomach of the deceased. That which I said was this:—"I have found a trace of morphia;" and when the Coroner asked me how much that might be, I answered to the best of my belief and judgment, saying, "that perhaps it might be about the tenth of a grain;" and when this was followed up by another question as to how much opium was equal to a tenth of a grain of morphia, I answered "One grain." This, however, is very different from the assertion that I had extracted a grain of opium from the stomach; and all who have had any experience at Coroners' inquests, know how difficult it is to answer such questions as these without the risk of misleading the jury, by giving them the opportunity of wandering away from facts to opinions; and all who have had such experience will give to these answers of mine a proper value. A third error of your correspondent is, that my chemical conclusion was made to fit the evidence. This, Sir, is not true, for my opinion was formed and was given in evidence before I knew anything about the circumstances of the case; and it really went to confirm the suspicion that death had been occasioned by morphia. Lastly, your correspondent states that the druggist who prepared the medicine which I examined told me what it contained. This, Sir, is also untrue, for it was I who wrote to the druggist, and told him, a week before I saw him, what I had discovered; and the only difference in our accounts was that I mentioned tincture of senna as a constituent, whereas it appeared from his statement that it was infusion of senna strengthened with alcohol; and when I wrote to him informing him of my results, the simple question which I wished him to solve was the very question which is still beyond our reach, namely, what else he had put into the salts and senna mixture besides alcohol, ether, and camphor; for that is the thing which has given the reactions so like those of morphia. Taraxacum has had nothing to do with this business; and if your correspondent will but help me in ascertaining what this thing is, he will be conferring a benefit on toxicological science. For my part, I feel that, in order to discover it, it will be necessary to make a complete examination of everything in the druggist's shop; and this, as I need not say, is a labour beyond my power. I am, &c.

H. Letheby, M.B.

London Hospital Laboratory, Dec. 16, 1857.

TYPHUS AND TYPHOID FEVER.

[To the Editor of the Medical Times and Gazette.]

Sir,—In the number of the *Medical Times and Gazette* for November 21, there is a letter from Mr. James Cooper, of Cromer, in which the writer finds fault with Dr. Watson for having, in the recent edition of his "Lectures," ascribed the merit of establishing the distinctions between typhus and typhoid fever to Drs. Stewart, Bartlett, and Jenner; and for having omitted all mention of Dr. Perry, of Glasgow, whose observations in the winter of 1835-36, he considers to have afforded the clue to the fuller elucidation of the subject by more recent observers.

The truth is, that, as in most discoveries, the steps towards the recognition of these distinctions have been gradual; and although Dr. Perry's observations at the time were of much value, they hardly, I think, now deserve the merit of originality and importance which Mr. Cooper would claim for them. The following historical facts connected with this subject may not be uninteresting to your readers.

There can be no doubt that both typhus and typhoid fever have long been prevalent in this country. So long ago as 1734, Dr. Ebenezer Gilchrist, of Dumfries, N.B., published an "Essay on Nervous Fevers." The fever which he described was evidently typhoid, for he speaks of its attacking chiefly the young, of its long duration, and of the occurrence of diarrhœa, melæna, epistaxis, &c. "I take this fever," Dr. Gilchrist observes, "to be very different in its nature and changes from other fevers."—(Edin. Med. Essays and Observations, vol. iv. p. 347.) So, in like manner, in the works of many other authors, during the last century, and more especially in those of Huxham, Sir John Pringle, and Dr. Willan, we find unmistakeable allusions to both forms of fever, and opinions expressed that they were distinct diseases. Still, until within the last twenty years, the whole subject remained in obscurity, In England, the occurrence of disease of Peyer's patches was regarded as a mere accidental complication of typhus, whereas the French pathologists, from the time of Prost and Broussais, considered disease of Peyer's glands as a constant and essential lesion in fever, and maintained that it must have been overlooked by English observers.

In the year 1822, Dr. Antenrieth, jun., a young German physician studying in Edinburgh, published a paper in the *Edin. Med. and Surg. Journ.*, vol. xviii. p. 325, "On the Spasmodic Abdominal Typhus of Young People," which he had observed in Germany. Although Dr. Antenrieth's description of the post-mortem appearances is very imperfect, the watery diarrhœa, tympanites, abdominal pains, epistaxis, and other symptoms which he enumerates, show that the disease was typhoid. He clearly considered it as different from typhus, for he observes:—

"Although the symptoms of the abdominal typhus are nearly the same as those in some forms of true typhus, yet the disease which I shall describe is essentially distinguished from the latter, by arising independently of any contagion, by the particular time of life in which it spontaneously occurs, and by the seat of the complaint being the nervous system of the abdomen rather than the brain." He believed, however, that this fever "passes sometimes into the true typhus, and becomes contagious."

In January, 1836, Dr. Perry, of Glasgow, also gave a good account of typhoid fever (*Edinburgh Medical and Surgical Journal*, vol. xlv. p. 64); but as regards its distinction from typhus (which is all we have to do with at present), he really seems to have arrived at no conclusion more satisfactory than that of Dr. Antenrieth, and other contemporaneous observers. This will appear from the following extract from his paper, in which his views on the matter are summed up:—

"*Dothinenteritis*, or enlargement of the mucous follicles of the smaller intestines, and enlargement and ulceration of the aggregated glands of the lower third of the ileum, occurs *in combination with contagious typhus*, and is to be met with in about six of those who die from typhus. It also exists as a disease *per se*."

In the same year (1836), Dr. H. C. Lombard, of Geneva, who had previously had ample experience of typhoid fever in Switzerland and France, visited various towns in England, Scotland, and Ireland. After watching some cases of fever in Glasgow and Dublin, which he had considered as similar to the typhoid of the Continent, he was at first astonished to find no disease of Peyer's glands. After further investigations in Liverpool, Manchester, Birmingham, and London, he came to the conclusion that there are two distinct and separate fevers in Great Britain; one of them identical with the contagious typhus, the other a sporadic disease, identical with the typhoid fever, or *dothinenteritis* of the French." Dr. Lombard's observations will be found in two letters addressed by him to Dr. Graves, of Dublin, in the tenth volume of the *Dublin Journal of Medical Science*, pp. 17, 101.

In the same year also (1836), an epidemic of typhus broke out at Philadelphia. Drs. Gerhard and Pennock, of that city, who had both studied typhoid fever formerly in Paris, soon recognised the differences of the two diseases, so that, after a time, they were never deceived in their diagnosis between the two. Their observations, showing the points of distinction were published by Dr. Gerhard in the *American Journal of Medical Science* for Feb. and Aug. 1837. M. Vallcix, of Paris, thus alluded to these observations in 1839:

"M. Gerhard établit d'abord un fait bien important, c'est qu'il peut exister, et qu'il existe en effet, concurrément dans

le même pays, deux maladies, qu'on peut parfaitement diagnostiquer, et dans lesquelles, on peut prédire, du vivant du malade, les lésions qui seront trouvées après la mort: ce sont, la fièvre typhoide, et le typhus proprement dit."—*Archiv. Gén. de Méd.* 3d Ser. tom. iv. p. 210.

In February 1839, Dr. Shattuck, of Boston, U.S., came over from Paris, where he had already studied typhoid fever, and watched some cases at the London Fever Hospital. He wrote an account of thirteen cases, which he read as a paper to the Medical Society of Observation of Paris. About one-half of Dr. Shattuck's cases appear to have been typhus; the other half were typhoid. Dr. S. strongly insisted on the existence of two fevers in England, and pointed out with considerable minuteness the distinctions between the two. His paper formed the groundwork for a second review on fever, published by M. Valleix, in the *Archiv. Gén. de Méd.* for Oct. 1839. From the observations of Drs. Gerhard and Shattuck, Louis, as appears from the second edition of his great work on Typhoid Fever (1841), was convinced that typhoid was a distinct disease from the typhus of England and America.

Dr. A. P. Stewart (now Physician to the Middlesex Hospital) studied fever in the Glasgow Fever Hospital from the summer of 1836 to June 1838, and afterwards in Paris. The results of his researches were communicated to the Parisian Medical Society on the 16th and 23d of April, 1840, and afterwards published in the *Edinburgh Medical and Surgical Journal* for October of the same year. Dr. Stewart pointed out, in a very masterly manner, the leading distinctions between the two fevers, as regards their origin, proximate cause, course, symptoms, anatomical lesions, etc. He distinctly described the differences of the cutaneous eruption met with in each. Although Dr. Stewart's observations were not published till 1840, he seems to have been convinced of the distinctness of the two fevers so early as 1836, even before the researches of Messrs. Gerhard, Pennock, and Shattuck. Thus he says, when he first began to study fever in Glasgow, he was struck with the simultaneous occurrence in the wards "of two sets of cases, in which the symptoms, however little most of them might seem to differ, when viewed individually, presented, when taken collectively, characters so marked as to defy misconception, and to enable the observer to form with the utmost precision the diagnosis of the nature of the disease, and the lesions to be revealed by dissection." Any one who will take the trouble of referring to Dr. Stewart's valuable memoir will be convinced, that it has not latterly met with the attention which it deserves. Dr. Stewart, however, notwithstanding the ability with which he laid down the distinctions between typhus and typhoid fever, was unable to express himself decidedly as to their specific non-identity, as will be seen from the following cautious and philosophic paragraph with which he concludes his paper:—

"On a review, then, of all that has been advanced, it would appear that typhus and typhoid fever present important differences as regards their probable origin, their proximate causes, their course, many of their symptoms, their diseased appearances, and the treatment applied in each. Are they, then, identical, or are they not? I feel that it would be presumptuous in me to hazard a direct reply; nor do I demand an answer in the affirmative, merely on the faith of what I have stated. All I can ask or wish for is careful, extensive, and minute inquiry, without prepossession or love of system, and a satisfactory solution must soon be arrived at."

This careful, minute, and extensive inquiry was reserved for Dr. Jenner. Dr. Jenner's researches were published in the *Edinburgh Monthly Journal*, the *Medical Times*, and the *Transactions of the Royal Medical and Chirurgical Society for* 1850. They are, or ought to be, familiar to all who pretend to be conversant with modern Medical literature, or to keep pace with the advancement of their profession. Dr. Jenner confirmed and amplified the distinctions which had previously been drawn by Drs. Gerhard, Shattuck, and Stewart, between typhus and typhoid, and did much to facilitate their diagnosis. The most important and the most original, however, of his researches, as far as regards the specific differences of typhus and typhoid, are those which have reference to their dependence upon distinct specific causes. Thus he endeavoured to show:—

1st. That the same focus of contagion will produce only one kind of fever; or that either fever will only communicate itself, and not the other; and,

2nd. That an attack of either fever produces an immunity from subsequent attacks of itself, but not of the other—(patients convalescent from the one fever being sometimes attacked by the other, communicated to them from another inmate of the same ward.)

These facts, if borne out by future experience, certainly go far to prove that the two fevers are as specifically distinct as measles and scarlatina; and it is possible that further researches into the etiology of the two fevers may throw some light upon this important point.

I am aware that much has been written on the other side of the question, to prove the identity of typhus and typhoid. The only observations of any importance, however, which have been adduced with this object are those of M. Landouzy, of Rheims, and Professor Magnus Huss, of Stockholm. M. Landouzy has given an account of an epidemic which prevailed in the gaol at Rheims in 1840. If his observations were correct, the symptoms during life would appear to have been those of typhus (including the eruption), while the intestines after death presented the lesions of Peyer's patches characteristic of typhoid.—*Archiv. Gén. de Méd.* 3rd Ser. xiii. pp. 1306. Again, Professor Huss quotes several instances in which, of several cases of fever originating in one house, some were typhus and others typhoid; and also mentions an instance of an isolated case of typhus propagating both typhus and typhoid.—*Statistique et Traitement du Typhus et de la Fièvre Typhoide.* Paris, 1855. I cannot at present enter more at length into this matter; but I would simply observe, in conclusion, that even the most sceptical as to their specific difference must admit the importance of distinguishing the two fevers in a practical point of view. Even allowing that they are both merely forms of an individual disease, to use the words of Dr. Bartlett, "It would still be hardly less important that we should be able to distinguish between them as forms or varieties of disease. In a practical point of view, the necessity of an accurate diagnosis is not removed, even by the conclusion which I have supposed."—*On the Fevers of the United States*, 4th Ed. p. 260.

I am, &c. Charles Murchison, M.D.
Assist. Phy. King's College Hosp., and
31, Sackville-street, W. Lond. Fever Hosp.
Dec. 8, 1857.

REPORTS OF SOCIETIES.

ROYAL MEDICAL AND CHIRURGICAL SOCIETY.

Tuesday, Dec. 8, 1857.

Sir C. Locock, President, in the chair.

A paper, by Dr. Henry R. Silvester, was then read:—

A CONTRIBUTION TO THE SCIENCE OF TERATOLOGY.

The congenital deformity existed in both upper extremities In the right arm, the radius was entirely absent. The upper part of the ulna and the lower extremity of the humerus were modified to compensate for the deficiency. The defective parts in the hand were the scaphoid, trapezius, and the metacarpal bone and phalanges of the thumb. The pronators, supinators, flexors, and extensors of the radial side of the carpus and of the thumb were absent. The flexors and extensors in the middle of the arm were abnormal, but those on the ulnar side were normal. The hand was fixed in a prone position, and flexed to such an extent that the radial side of the index-finger lies adjacent to the radial side of the forearm. The left arm was more deformed. The scapula was well formed, except that the glenoid cavity presented the form of a hemispherical eminence. Little more than the lower extremity of the humerus existed, and a small cartilaginous nodule represented the radius. The carpus presented only the pisiform, cuneiform, and unciform. The metacarpus the three inner bones. The little and ring fingers were persistent. The soft parts of both arms presented many interesting peculiarities, and were described in detail.

The following were amongst the "Conclusions" drawn from the facts contained in the paper:—That a Law of Compensation

prevails during the growth of the body in monsters—a certain tendency to render the parts as nearly normal as possible, and to make up by excessive formation for the defective development of an adjoining part. This principle may be shown equally to exist in the animal and vegetable kingdoms. Examples from the vegetable kingdom: The leading shoot of a plant being cut off, its place is supplied by the development of an adjacent lateral branch. In the same way, when the carpels of fruits are irregularly developed, the defect is remedied by the excessive growth of a corresponding portion. In the animal kingdom, an example may be taken from the subject before us. The outer part of the great sigmoid cavity of the ulna is rendered larger than usual by projecting forwards and outwards. It is concave, and the concavity is directed upwards and outwards, and it becomes exactly adapted to the capitellum of the humerus, or that part which usually articulates with the head of the radius. In this way, the integrity of the elbow joint is to a certain extent maintained, notwithstanding the entire absence of the radius. An example from the vascular system: In the right arm, the median artery, which is usually a small branch of the interosseous artery accompanying the median nerve, compensates for the deficiencies of the ulnar artery by giving off digital branches, and completing the superficial palmar arch. An instance from the nervous system: In the right arm, a branch of the interosseous nerve from the median trunk compensates for the absence of the radial nerve, and supplies digital branches on the back of the hand for those fingers which are usually supplied by the radial. The absence of arrest of development or defective condition of the radius, which appears to be the rule in congenital malformations of the human forearm, is not the normal state in brutes. The ulna is the bone which in them is atrophied. In the horse or ox, the ulna is retained only in so far as it is required to strengthen the radius, make the joint of the elbow secure, and give advantageous attachment to certain muscles, and forms what in human anatomy would be called a process of that bone. The hand is maintained in its proper position by the radius. When the radius is defective in length, or absent, or too long, the posture of the hand is abnormal.

The paper concludes as follows:—It having been proved that the malformation of the germ owes its origin to something connected with our peculiar mode of existence, and if, as I have endeavoured to show, the tendency of the laws regulating the formation of the body is to render the parts as nearly normal, and the body as capable of life and existence, as possible, it can scarcely be said that monstrosities "offer an apparent exception to the inferences which have been drawn from the animal kingdom in general concerning some attributes of the Creating Power," a theory which has been advocated by an eminent physiologist.

A paper by Dr. Harley was then read,

ON THE HISTOLOGY OF THE SUPRA-RENAL CAPSULES.

The author began by pointing out that the supra-renal capsules could not properly be said to diminish in proportionate size and activity of function with advancing years. He placed upon the table several preparations of supra-renal capsules, taken from individuals of different ages, to prove that their development proceeded at a certain ratio after birth. He moreover stated, that as they did not become proportionally more atrophied in old age than many of the other organs, it might naturally be supposed that they had a certain function to perform in adult as well as in fœtal life. Dr. Harley then called attention to the great variety of size and shape of the supra-renal capsules throughout the vertebrata, and afterwards proceeded to point out the appearances presented to the naked eye by healthy supra-renal capsules. He denied the existence of any large cavity in the centre of the healthy human supra-renal capsule, and said that when such was found it was the result either of accidental rupture of the medullary substance, or as the effect of disease. He pointed out, however, the existence of a number of small sinuses in the centre of the organ. Dr. Harley said that the cortical and medullary portions of the supra-renal capsules, which are so different in colour, have equally distinct microscopical characters. The former, which constitutes the greater part of the organ, consists of a number of cells, arranged in irregularly-sized rows in a fibro-areolar matrix, the rows of cells appearing like a number of dark yellow columns placed perpendicularly to the surface. The cells, when examined individually, are seen to be composed of a homogeneous cell-wall, filled with granules, pigment, and some fat globules. Each cell possesses a well marked nucleus, although it is not always visible without the employment of reagents. The easiest way to demonstrate the existence of a nucleus, the author said, was to colour the cells with carmine.(a) When floating free in the field of the microscope, the cells appear irregularly round; but when grouped together, they have a somewhat polygonal form. The cells are arranged in a number of larger and smaller masses, which are placed in regular rows, and thus give rise to the columnar appearance. In some cases a column is composed of several cell-masses of different lengths, placed end to end; in others it consists almost entirely of one long cell-mass. Each column, as well as each cell-mass, is separated from the others by delicate fibrous tissue, in which is included the vessels and nerves. Sometimes the cell-masses present the appearance of long tubes, enclosing a single straight row of quadrilateral cells. Each cell-mass is closed at the extremities, and is surrounded by a delicate homogeneous membrane. The dark slate-coloured medullary substance of the supra-renal capsules has a very different structure from that just described. It is composed of a net-work of fibres, in the meshes of which are a number of large nucleated cells, which have been described by various writers as ganglion corpuscles. Dr. Harley thinks, however, that these, like the cells in the cortical substance, are true secreting cells. The supra-renal capsules are very freely supplied with bloodvessels. Their course and distribution were minutely described. The author concluded his communication by making a few remarks on the supposed functions of the organ, in the course of which he observed that in the supra-renal capsules of the frog he had found blood corpuscles in various stages of development. Each point of importance in the paper was fully illustrated by diagrams and microscopical preparations.

THE PATHOLOGICAL SOCIETY.

Tuesday, Dec. 15.

Dr. Watson, President, in the Chair.

Mr. Buxton Shilleto exhibited a specimen of

DISEASED HEART AFTER INTERMITTENT FEVER.

A gentleman had suffered, sixteen years ago, from acute rheumatism, believed to have been without heart affection. He regained perfect health. His fatal illness was a well-marked intermittent. He was confined to bed for about a month before death. No heart symptoms were noticed until within a few days prior to the fatal event, when a loud systolic murmur became audible. A paroxysm of angina preceded death. A large mass of decolorised blood-clot was found enclosed in a false aneurismal sac, and pendent into the left auricle. The heart was very large, and its walls thick. The false aneurism communicated above with the sinus of the aortic semilunars, and below with the left auricle. The semilunar valves were extensively diseased.

Dr. Peacock, who had examined the specimen when recent, thought there had been old disease of the semilunars, which had caused no symptoms, and that in connexion with the fatal intermittent fever ulceration had occurred above them, thus forming the false aneurism which had been described.

Mr. Shilleto also showed

GLOBULAR WAXY BODIES PASSED FROM THE BOWEL.

These varied in size from a pea to a large cherry-stone. They had been voided in large numbers by a lady residing in Wales, who had been liable to their appearance for several years past. Mr. Shilleto did not give an opinion as to their exact nature.

(a) This is a new process lately discovered in Germany. It was very briefly described by Dr. Harley. The principle of "imbibition," as it is called, is founded upon the fact that various animal tissues absorb and retain pigments with different degrees of avidity. Thus, for example, granular tissues possess a special attraction for colouring matters. Homogeneous substances, on the other hand, display but a feeble affinity for them. A cellular is consequently more readily tinged than a fibrous structure; and in the tissues composed of aggregated cells, various parts are coloured in different degrees of intensity. Thus the homogeneous cell-wall retains its colourless appearance long after its granular contents have become deeply tinged, and the nucleus, which is usually the most granular part of the cell, has become of a prominent dark hue.

Dr. Bristowe was appointed to examine them further, and report.

Mr. Obre, for Dr. Boyd, showed a specimen of

ABSCESS IN THE WALLS OF THE HEART.

A man, who had not during life been known to have heart disease, died suddenly. In the apex of the muscular walls was a small abscess containing a drachm or a drachm and a half of matter. The pericardium was adherent, and there were signs of recent inflammation.

Dr. Peacock made some remarks upon the extreme rarity of true abscess in the muscular parietes of the heart, and doubted whether this was really an example of it. He had himself seen but one such specimen.

The President suggested that a further examination should be made. Dr. Peacock and Mr. Hutchinson were appointed for that purpose.

Mr. Obre also showed a specimen of

SOFTENING OF THE SPINAL CORD.

A man, aged 48, had been admitted into the asylum under Dr. Boyd's care, with general paralysis and dementia. He lived a year in the asylum, and died after a lingering illness. The whole spinal cord was much softened, and bathed in pus over its entire length. Dr. Boyd remarked that softening of the cord was the usual condition, which according to his experience was associated with general paralysis.

Dr. Andrew Clarke and Dr. Johnson were appointed to examine this specimen as to its microscopic features.

Dr. Bristowe showed a specimen, and made some remarks upon the nature of the symptoms present in a case of

HÆMORRHAGE INTO THE PONS VAROLII.

A man admitted into St. Thomas's, in deep coma, died in about an hour. No convulsions had occurred. The pupils were, unfortunately, not examined. At the autopsy the heart was found of large size, and in the pons varolii was a recent clot, the size of half a walnut, no other disease existing. Dr. Bristowe related also the particulars of a second case, in which a man, under the care of Dr. Peacock, died some months after the first fit, and at the autopsy an old clot in the pons varolii was found. The man had had no general paralysis and no convulsions, and his pupils had not been contracted. There had been paralysis of most of the muscles of the eyeball. In the absence of convulsions and of contraction of the pupils, these cases did not conform to the train of symptoms which some had described as diagnostic of extravasation into the pons.

Dr. Bristowe also showed a specimen of

CANCER OF THE MEMBRANES OF THE BRAIN.

Numerous tumours were scattered through the brain, chiefly attached to its membranes. There was much fluid in the ventricles. The patient was a child, aged six, who had died in St. Thomas's Hospital, after having had symptoms of hydrocephalus, but with special paralysis of several muscles of the eyes and face, which indicated the existence of some morbid growth. Dr. Bristowe thought that the malignant disease had probably been the cause of the hydrocephalus.

Dr. Brinton gave the particulars of a case of

CANCER OF THE MEMBRANES OF THE BRAIN.

This case closely resembled the one which Dr. Bristowe had just described. The disease, however, had been secondary. The patient was a woman of 48, who had for some years suffered from cancer of the uterus. The tumour in the brain was chiefly connected with the falx. Dr. Brinton remarked that in connexion with the falx was the usual position for these cerebro-meningeal cancers. Examples of it were very rare.

Mr. Holmes showed a specimen of

BLOOD CYST OF THE THIGH.

The patient was a very cachectic young woman, under the care of Mr. Prescott Hewett, in St. George's, who four years ago had had a fibro-plastic tumour excised from the popliteal space. The tumour after removal had proved to consist chiefly of blood clot. The second tumour recurred in the thigh of the same limb. It appeared to consist of a blood cyst filled with coagula. The disease was believed not to be malignant.

Mr. Holmes also showed a specimen of

VERY LARGE CARTILAGINOUS AND BONY TUMOUR OF THE HAND.

The specimen was an old one from St. George's Hospital museum. The growth appeared to be chiefly cartilaginous. It was very large indeed; irregular in its outline, and the size of a child's head. It appeared to have originated in the carpal bones. It had been removed by amputation through the fore-arm of an elderly man. It had commenced early in life.

Mr. Birkett expressed an opinion that the tumour was an example of an unusually large growth of the ordinary cartilaginous ones of the bones of the hand. It was rare now-a-days to see large ones of this kind, as they are almost always operated upon early.

Mr. Heath next brought forward a preparation, showing

TUBERCLE IN THE TESTIS.

It had been removed from the body of a young man, in the dissecting-room of the Westminster Hospital. It showed a mass of tubercular deposit in the epididymis.

Dr. Andrew Clark remarked that he had often examined tuberculous testes, and that his conclusion had been that the deposit was usually within the tubes. He wished to know whether Mr. Heath's examination had confirmed this.

Mr. Heath believed that such was the position of the deposit in his case.

Dr. Armitage showed an example of

FIBRINOUS DEPOSIT IN THE KIDNEY.

The organ showed the large masses of grey yellow deposit, which are not unfrequently met with in the kidneys, spleen, liver, etc. Around these masses, which were somewhat raised, was a belt of extreme congestion. Dr. Johnson had made a more detailed examination of the specimen, both by microscope and otherwise, and would state his views of the pathology of these deposits.

Dr. Johnson entered into an interesting exposition of his views respecting the mode of the formation of these fibrinous deposits in the renal tissue. He had found in several specimens, and was prepared to demonstrate, that the veins of Malpighian capillaries, and the intertubular ones especially, were usually plugged by coagula. Thus the rim of acute congestion was explained by the turgid condition of the capillaries beyond the plugged veins. He had no doubt that the coagula in the veins were formed there, and were not derived from the valves of the heart, as some had conjectured.

Dr. Bristowe stated that he believed that these masses of fibrinous deposit often, if not usually, were the result of extravasation of blood, the colouring parts of which had been absorbed.

Dr. Armitage also showed a specimen of

RUPTURED ABDOMINAL AORTA IN A CHILD.

It had been removed from the body of a child 7½ years of age, who had died with the symptoms of internal extravasation of blood. The autopsy showed the aorta ruptured just above its bifurcation, and a large quantity of blood poured out. There was no disease of the arterial coats in other parts. Around the aorta, at the point of rupture, the tissues were thickened and consolidated by inflammation. It appeared that a small rupture had occurred some time before death, but the chief extravasation had evidently only happened just prior to the fatal event of which it had been the cause. There had been no mechanical injury. There was a history of palpitations from childhood; loud systolic bellows sound, loudest at apex of heart; violent action; increase of vulnc-precordial dulness. A few days before death much pain in the loins and down legs, especially in the knees, of an aching character. An attack, described as convulsions, followed in half an hour by another. Death in an hour from the occurrence of the first seizure.

(To be continued.)

Grocer and Tobacconist Chemist.—A Step in the Right Direction.—A correspondent and a Member of the Pharmaceutical Society writes to say, that the Society intends to petition the Commissioners of the Inland Revenue "to withdraw" the licences of all chemists dealing in tobacco, grocery, and stationery. A similar petition is to be presented to the Postmaster-General, praying that no more chemists shall be appointed as postmasters.

PARLIAMENTARY INTELLIGENCE.

HOUSE OF COMMONS.

THURSDAY, DECEMBER 10.

THE PUBLIC HEALTH.

Mr. COWPER, in moving for leave to introduce a Bill to amend the Public Health Act (1848) said, it was the same Bill which was read a first time last session and could not be proceeded with for want of time. The general object was to provide that every town in England, great or small, should have the opportunity of acquiring, without any considerable cost or difficulty, local representative government, armed with sufficient powers to provide structural works and to make regulations necessary for the sanitary improvement of the inhabitants. The tendency of manufactures and the movement of particular branches of industry caused the rapid growth of towns in places which were previously thinly inhabited. The suburbs of Birmingham, Manchester, and the eastern districts of London had rapidly accumulated very large populations. Houses were built without method and without under-drainage, so that the refuse was carried into some neighbouring ditch, where it remained to create noxious vapours injurious to health. Both the towns which had and the towns which had not representative government wished to be able to adopt the Public Health Act with greater facilities and with provisions more adapted to their wants. There were some who asked, Why such meddling and such unnecessary interference? The purpose of the meddling was to get rid of the refuse of thousands, which had the effect of substituting disease for health, weakness for strength, and death for life. The number of deaths from preventible causes was estimated at 80,000 a-year, a large proportion of which arose from diseases altogether to be prevented if towns were properly cleansed. It was acknowledged by the highest medical authorities that typhus fever was generated by overcrowding and by noxious exhalations; and in blind purlieus, courts, and alleys, typhus numbered among its victims about 17,000 persons. Other diseases, as erysipelas, consumption, and scrofula, were greatly increased by the same causes. It was admitted that cholera was a disease which could be prevented being fatal by cleanliness and care. No better illustration was afforded than by the two towns of Tynemouth and Newcastle. In the interval between the last two visitations of cholera sanitary measures were adopted in Tynemouth, and neglected in Newcastle. At the last visitation the deaths in Newcastle from cholera were 2000, and in Tynemouth 4. Similar results were traceable with regard to pure water. It was found, by comparing the deaths which occurred among the population of London served by the different companies, that those who drank the foul water taken from within the tidal area died in a proportion three and a-half times as great as those who drank the pure water which was taken from above the tidal area. Cholera with diarrhœa and dysentery, destroyed 27,000 annually. In the same way the mortality of infants depended greatly upon the influence of the air they breathed, and Dr. West mentioned that infantile diarrhœa, in the severe form in which it prevailed in the ill-drained districts, was not to be found in the well-drained districts of the metropolis. There was a tendency, continually going on in this country, to gravitate towards towns, and to live less in rural districts. The town population was more unhealthy than the rural. It was found that people died in large towns at the rate of one-third more than in small towns and villages. Among many causes which increased the unhealthiness of towns was the neglect to remove immediately from the neighbourhood of houses the refuse which, if allowed to decompose, polluted the air and tainted the water. It was, therefore, incumbent upon those who were anxious to maintain the health and prosperity of the country, that they should give every facility for the proper sanitary administration of towns. This Bill had that for its object, and notwithstanding the topics of absorbing interest pressing upon the attention of Parliament, he hoped that in the ensuing session they would find time to consider it.

Mr. AYRTON said, the right honourable gentleman was under a misapprehension if he supposed that the opposition with which his Bill of last year had been received was to the end to which it was directed. It was to the indiscreet means by which it sought that end, and to the disposition evinced to bring all the action of the local authorities under the control of one central office. Provided that the Bill were drawn in such a manner as to effect the end of improving the sanitary condition of the people, without infringing on their personal liberties, it would meet with his support.

Sir A. ELTON thanked the right honourable gentleman for the clear exposition which he had given of the objects of the Bill. From his own experience, as the head of a Local Board, he was convinced that it was eminently calculated to further the welfare of the people. It was a poor man's question, for the poor man had no security against the neglect of his landlord to provide for his health and comfort but the law. Though he was a supporter of the principle of local freedom of action, yet he thought there ought to be a power existing somewhere which would set right the wrongdoings of the local authorities, and stir them up when they neglected their duties.

Leave was then given to bring in the Bill, which was subsequently brought in and read a first time.

FRIDAY, DECEMBER 11.

PUBLIC HEALTH ACT AMENDMENT BILL.

In reply to Mr. Palk,

Mr. COWPER said that though this Bill was set down for a second reading to-night, it was merely *pro formâ*, and it was not his intention to ask the House to read the Bill a second time until after the recess.

MEDICAL PRACTITIONERS.

Mr. KENNAIRD asked the Vice-President of the Council of Education whether it is the intention of Her Majesty's Government to introduce any measure after the Christmas recess with a view of amending the laws relating to the practice of medicine and surgery in the United Kingdom.

Mr. COWPER said it was his intention to introduce a measure regulating the qualifications to be required hereafter from persons admitted into the medical profession.

MEDICAL NEWS.

APOTHECARIES' HALL.—Names of gentlemen who passed their examination in the Science and Practice of Medicine, and received Certificates to Practise, on Dec. 10:—

BLACK, WALTER SHAW, Chesterfield.
BURN, JOSEPH, Kirton, near Boston.
DIXEY, AUGUSTUS EDWARD, Army.
HILL, MATTHEW BERKELEY, Stapleton, Bristol.
IRVING, JAMES, Long Bennington, Lincolnshire.
WELLETT, JAMES, near Northwich.

DEATHS.

BARTRUM.—On the 26th Sept., at Lucknow, while serving with the leading column under General Havelock, Robert Henry Bartrum, Assistant Surgeon, H.E.I.C.S., 3d Oude Irreg. Infantry, aged 26. "Was shot dead at the gate of the Residency, and within a few hundred yards of where his poor wife was expecting him."

BEALES.—On the 10th inst., at 5, Old Quebec-street, Portman-square, in the 54th year of his age, after an illness of three months, John Beales, of Halesworth, Suffolk, M.R.C.S. 1827; L.S.A. 1830.

BENSON.—At the County Dispensary, Norwich, on the 3d inst., James Farish Benson, from scarlet fever, combined with pleurisy, aged 24 years, M.R.C.S. Eng. 1855, L.S.A. 1856.

DALE.—On the 10th inst., John Dale, Esq., M.R.C.S.; and L.S.A., 1822, at Yarm, Yorkshire, aged 57. His death took place from an attack of apoplexy. His loss will be greatly felt, as he had been a practitioner in Yarm for the last 35 years. He was followed to his grave by an immense concourse of persons, including the members of the Odd Fellows Society, of which he had been a brother for many years. On the 8th inst. he visited a patient eight miles distant, and retired to rest as well as usual; he was seized with the fit on Wednesday morning, and lingered until Thursday morning, the 10th inst.

HILL.—On Dec. 3, J. Hill, Derby, aged 66.

JOHNSTON.—On the 9th Oct. last, at Ascension, Paraguay, John Johnston, M.D., late of 14, Old Burlington-street, London.

CHINESE ORTHOPŒDICS. — The Correspondent of the *Times* in China gives the following interesting description of the manner of deforming the feet of Chinese females :— "There are small-footed ladies at Hongkong who gain a very fair livelihood by exhibiting their pedal extremities to sea captains and other curious Europeans, at a dollar a-head; but as so superficial an examination of this national peculiarity did not satisfy me, I had recourse to some of my good friends among the missionaries. By their aid I obtained that some poor Chinese women should bring me a complete gamut of little girls from the missionary schools. Many of these female children probably owed their lives to the persuasion (aided by opportune donations of rice) of my missionary friend and his lady, but their influence had been powerless to prevent the torture of their feet. On the appointed day they were all seated in a row in my friend's library, and their feet, which I suspect had undergone a preparatory washing, were unbound by their mammas. The first was a child of two years old. Her penance had just commenced. When the bandage of blue cotton was taken off I found that the great toe had been left untouched, but the other four had been forced down under the ball of the foot, and closely bound in that position. The child, therefore, walked upon the knuckle joints of her four toes. The toes were red and inflamed, and the ligature caused evident pain. In the next three children (all of ages advancing at small intervals) the preparation was only to the same extent; it was confined to the four toes; gradually, however, these four toes, ceding to the continual pressure, lost their articulations and their identity as limbs, and became amalgamated with the sole of the foot. In the eldest of the four the redness and inflammation had entirely disappeared, the foot was cool and painless, and appeared as though the four toes had been cut off by a knife. The foot was now somewhat the shape of a trowel. In the fifth girl I saw the commencement of the second operation—a torture under which sickly children frequently die. The sole of the foot was now curved into the shape of a bow; the great toe and the heel beingbrought together as near as possible. Take a jujube and double it till two points of the lozenge nearly meet, and you will see what I mean This is done very gradually. The bandage is never slackened—month by month it is drawn tighter—the foot inflames and swells, but the tender mamma perseveres—as the bones and tendons accommodate themselves to the position constrained by the bandage so it is drawn tighter. At last the ball of the natural foot fits into the hollow of the sole, the root of the great toe is brought into contact with the heel. The foot is a shapeless lump. The instep is where the ankle was, and all that is left to go into the slipper and to tread the ground is the ball of the great toe and the heel. This is the small foot of the Chinese woman—a bit of toe and a bit of heel, with a mark, like a cicatrice left after a huge cut, running up between them. Two of the girls were yet suffering great pain, and their feet were hot and inflamed, but in the eldest the operation was complete. She had attained to the position of a small-footed woman, and her feet were quite cool, had no corns, and were not tender to the touch. One of the mammas, influenced perhaps by a little liberality in the article of rice money, intrusted me with a Chinese *mystère de toilette*. Sometimes, it seems, when a woman is expected to have to do hard work, her toe and heel are not drawn so tightly together as to produce the true 'small foot.' To disguise this imperfection upon her marriage day she has recourse to art. A piece of cork, shaped like an inverted sugar-loaf, is strapped on to her foot, and the small part goes into her slipper and passes for her foot."

JURIDICAL SOCIETY. — On the 14th inst., Dr. Forbes Winslow read a paper on the legal doctrine of responsibility in cases of insanity, connected with alleged criminal acts. He combated the doctrine that the elementary and essential features of insanity consist in a disorder of the intellectual, as contradistinguished from a derangement of the moral, faculties of the mind, there being no such thing as separate and distinct faculties of that which is in its nature one and the same. After noticing the distinction which Mr. Fitzjames Stephens draws between tests of insanity and tests of responsibility, Dr. Winslow laid down the following as criteria of insanity propounded in the courts of justice :—1st, The presence of delusion. 2nd, Of delusions directly associated with the criminal act; and 3rd, A capability of distinguishing between what is lawful and unlawful, the capacity of knowing right from wrong, good from evil. These tests he held to be erroneous, as their absence did not necessarily establish in the offender the *malus animus—mala conscientia*, which are the ingredients of criminal guilt. Dr. Winslow maintained that if a man shows insanity in any one respect, he ought to be considered as a lunatic in all. Altogether denying the existence of such a disease as monomania, he mentioned a number of cases to show the existence of homicidal insanity, and insane irresistible influences, and passed on to consider how far the proof of a man being actuated by such feelings in the commission of a murder should modify his punishment. He was unwilling, he said, to associate the word punishment with a case of that kind, and thought that such a proof should entitle him to his acquittal. As he would, however, even so, be confined for life in a lunatic asylum, he would in reality be subjected to a punishment much more severe than if he were publicly executed. Considerable applause followed the reading of the paper, and an interesting discussion ensued, in which Vice-Chancellor Sir John Stuart and Mr. Baron Bramwell took part.

BRITISH GUIANA.—The office of Surgeon-General of Demerara has become vacant by the death of Dr. David Blair.

SMOKE NUISANCE ABATEMENT.—By this Act, which received the Royal assent on the 29th of July, 1856, from and after the 1st of January next the provision whereby certain furnaces in glass and pottery works were exempted from the operation of the Act of 1853 is repealed; and all steamvessels plying to and fro between London-bridge and the Nore Light, and furnaces employed in public baths and washhouses, are subject to the provisions of the Act.

SYPHILIS IN AFRICA.—"A certain loathsome disease, which decimates the North American Indians, and threatens extirpation to the South Sea Islanders, dies out in the interior of Africa without the aid of medicine; and the Bangwaketse, who brought it from the west coast, lost it when they came into their own land south-west of Kolobeng. It seems incapable of permanence in any form in persons of pure African blood anywhere in the centre of the country. In persons of mixed blood it is otherwise; and the virulence of the secondary symptoms seemed to be, in all cases that came under my care, in exact proportion to the greater or less amount of European blood in the patient. Among the Coramas and Griquas of mixed breed it produces the same ravages as in Europe. Among half-blood Portuguese it is equally frightful in its inroads on the system; but in the pure Negro of the central parts it is quite incapable of permanence. Among the Barosse I found a disease called 'Manassah,' which closely resembles that of the 'fœda mulier' of history."

Dr. Livingstone's Travels in Africa.

REMOVAL OF THE ENTIRE TONGUE.—An account has appeared in the Edinburgh daily papers of a case in which Mr. Syme removed the entire tongue in a case of cancer, by sawing through the symphisis of the lower jaw. The patient is said to be going on well. We shall, doubtless, hear full particulars of the operation and its result.

VITAL STATISTICS OF LONDON.

Week ending Saturday, December 12, 1857.

BIRTHS.

Births of Boys, 961; Girls, 842; Total, 1803.
Average of 10 corresponding weeks, 1847-56, 1507.

DEATHS.

	Males.	Females.	Total.
Deaths during the week	623	617	1240
Average of the ten years 1847-56	..	..	1297
Average corrected to increased population	...	..	1427
Corrected average for corresponding week in ten years 1847-56	650·8	645·8	1296·6
Deaths of people above 90	1	6	7
Deaths in 13 General Hospitals	27	9	36

DEATHS REGISTERED DURING THE WEEK.

Causes of Death.	In the Week ending Saturday, Dec. 12, 1857. Deaths of Persons. At all Ages.	Under 20 Years of Age.	At 20 and under 40 Years of Age.	At 40 and under 60 Years of Age.	At 60 and under 80 Years of Age.	At 80 Years of Age and Upwards.	Averages of Temperature and Deaths in 10 Weeks.
Mean Temperature.....	Mean temp. 45°0						43°7
All Causes	1240	631	141	198	215	55	1296·6
Specified Causes	1235	629	140	197	214	55	1288·8
Diseases:—							
1. Zymotic Class	259	205	18	15	17	4	308·8
2. Dropsy, Cancer, and others of uncertain seat	41	6	4	17	14	..	49·1
3. Tubercular Class	162	63	51	42	6	..	186 0
4. Of Brain, Nerves, etc. ..	112	50	17	19	23	3	125·0
5. Of Heart, etc.	46	7	7	19	13	..	45·6
6. Of Respiratory Organs ..	336	166	18	55	84	13	300·3
7. Of Digestive Organs ..	63	25	9	14	12	3	61·7
8. Of Kidneys, etc.	9	..	..	4	3	2	14·2
9. Of Uterus; viz. — Puerperal Disease, etc. ..	8	..	6	2	..	..	9·5
10. Of Joints, Bones; viz.— Rheumatism, etc. ..	5	2	2	1	..	..	8·8
11. Of Skin, etc.	1	1	..	..	..	..	1·9
12. Malformations	4	4	..	..	..	..	5·1
13. Debility from Premature Birth, etc.	34	34	..	..	..	..	30·2
14. Atrophy	36	30	..	..	6	..	28·4
15. Age	58	..	..	..	29	29	56·8
16. Sudden	21	15	..	2	3	1	14·5
17. Violence, Privation, etc...	40	21	8	7	4	..	42·9
Causes not specified.. ..	5	2	1	1	1	..	7 8

DEATHS IN SUB-DISTRICTS FROM EPIDEMICS.

	Population. 1851.	Measles.	Scarlatina	Hooping-Cough.	Diarrhœa.	Cholera.	Typhus.
West	376,427	2	8	3	3	..	6
North....	490,396	8	12	15	3	..	11
Central ..	393,256	9	3	12	1	..	3
East	485,522	14	16	12	5	..	11
South	616,635	3	16	5	8	1	7
Total..	2,362,236	36	55	47	20	1	38

METEOROLOGY.

From Observations at the Greenwich Observatory.

Mean height of barometer	30·369 in.
Mean temperature	45·0
Highest point of thermometer	55·5
Lowest point of thermometer	35·3
Mean dew-point temperature	43·3
General direction of wind	S.W.
Whole amount of rain in the week	0·00
Amount of horizontal movement of air in the week ...	605 miles

BOOKS RECEIVED.

The Enlarged Prostate, its Pathology and Treatment. By H. Thompson, F.R.C.S. &c. London. 1857.

John Scott on the Treatment of Diseases of the Joints. By W. H. Smith, F.R.C.S. London. 1857.

The Beautiful in Nature and Art. By A. J. Symington. London. 1857.

The Effect of Climate on Tubereulous Disease. By Edwin Lee, M.D. London. 1857.

Introductory Lecture delivered at the Lying-in Hospital, Rutland-square. By A. H. M'Clintock, M.D. Dublin. 1857.

A Century of Suggestions, addressed to the Sleepy by One of Themselves. London. 1857.

The Medical Profession in Great Britain and Ireland, with an account of the Medical Organization of France, Italy, Germany and America. Part II. By Edwin Lee, M.D. London. 1857.

Manual of Qualitative Analysis. By Robert Galloway, F.C.S. Second Edition. London. 1857.

The Phenomena of Spinal Irritation and other Functional Diseases of the Nervous System. By Thomas Inman, M.D. London. 1857.

The Surgical Epoch. An Introductory Lecture. By J. S. Gamgee. London. 1857.

What Christianity teaches respecting the Body. A Sermon. By Robert Lee, D.D. Edinburgh. 1857.

Report of the Proceedings of the North Staffordshire Medical Society for 1856-7. Burslem. 1857.

TO CORRESPONDENTS.

An Old Subscriber.—The plates in illustration of Dr. Conolly's papers are in such a state of forwardness that we feel assured they will be issued with regularity. Gentlemen interested in this matter can see specimens on application at the Publisher's.

B. A.—Quite curable. Avoid all advertising quacks, and consult a respectable surgeon.

Dr. Kirwin.—We have not been able to procure a copy of Mr. Herbert's amendments.

Mr. Nutt's interesting case shall appear.

The General Lying-in Hospital, York-road, Lambeth.
To the Editor of the Medical Times and Gazette.

Sir,—I beg to say, directions have been given me to communicate to you that the exparte statement you published in your paper of the 12th instant, in reference to the Committee of the General Lying-in Hospital, will receive a full and comprehensive reply, I hope in time for insertion in your paper of the 26th instant, or at latest in that of 2nd January next.

I am, &c. Thos. Henry Smith,
Secretary and Solicitor to the Hospital.

1, Frederick's-place, Old Jewry, Dec. 16, 1857.

To the Editor of the Medical Times and Gazette.
Queen's Hospital Row,

Sir,—I was sorry to read your remarks in last Saturday's Gazette, which are evidently founded on an ex-parte statement. I know neither of the candidates, and am unconnected with the "Row." In common fairne you should have had Dr. Miller's refutation of the charges made by Mr. Cox and his friends, in which case I am satisfied you would either have remained silent, or your remarks would have assumed a very different complexion. I think it well as an admirer of the Gazette to give you caution as to the reception of information on this subject. As far as I know, the majority of the Medical public of this town are in favour of the *legality* of Mr. West's appointment; and the general public are almost entirely with him. I am, &c.

A Subscriber for Twenty-two Years.

Birmingham, December 14, 1857.

Justus.—The law as to *mala praxis* is thus laid down in Sewell's Law of Coroner—"A man may be guilty of manslaughter, if, notwithstanding he have a competent knowledge of medicine, he be guilty of gross rashness in the application of a remedy, or gross negligence in attending his patient afterwards."

Cholera and Premonitory Diarrhœa.

We have received a very long letter from Dr. Macloughlin in reply to the letters of Drs. Elliot, Evans, and Greenhow on this subject. Our space, however, does not allow us to do more than state that Dr. Macloughlin has made another visit to Westham, and his further inquiries have convinced him that there was premonitory diarrhœa in all the true cases of Cholera there.

St. Ives can obtain all the information he requires by writing to the office of the Army Medical Department, Whitehall.

Mr. Ley's Case of Poisoning by Nux Vomica shall appear.

Mr. Barron's request has been attended to.

Mr. Wright's letter on Perforate Tympanum arrived too late for insertion this week. It shall appear in our next number.

Dr. Ogle's letter is unavoidably delayed until next week, in common with several other communications.

COMMUNICATIONS have been received from—
Dr. Parkes; Mr. Paget; Mr. White Cooper; Dr. George Johnson; Dr. Forbes Winslow; Mr. Wilde, Dublin; Dr. Hare; Dr. Marcet; Dr. R. D. Thomson; Mr. Baker Brown; Dr. Letheby; Dr. Fenwick, Montreal; Mr. Wiblin; Dr. Moore; Dr. Yardell, Louisville, Kentucky; Dr. M'William; Dr. Kirwin; Mr. Dennehy; Mr. Nutt; The Registrar-General for Scotland; Mr. T. H. Smith; Mr. Rivers; Mr. Jessett; Mr. M'Dermott; Mr. White; Dr. Armitage; Mr. C. Heath; Mr. Barron; Mr. Ley; Mr. Dale; Mr. Wright; Mr. Gurney; Mr. Halford; Mr. Longmore; Mr. James; Dr. Tring; Dr. Euston; Mr. Elliott; Mr. Macdougall; Mr. Cullen; Mr. Austin; Mr Burman; Mr. R. Gilborne; Mr. Buckton; Dr. A. Cuthbert; Dr. R. Coulson; Mr. T. Barker; Mr. Wanklyn; Dr. R. Harmer; Dr. E. Sheppard; Mr. Mitchell; Mr. G. Morant; Mr. D. Mackechnie; Dr. W. H. Kent; Dr. R. Dane.

APPOINTMENTS FOR THE WEEK.

19. *Saturday (this day).*

Medical Society of London, 8 p.m.: H. Lee, Esq., "On the Treatment of Varicose Veins by Sub-cutaneous Section."

Operations at St. Bartholomew's, 1½ p.m.; St. Thomas's, 1 p.m. King's, 2 p.m.; Charing Cross, 1 p.m.

21. *Monday.*

Operations at the Royal Free Hospital, 1 p.m.; Metropolitan Free Hospital, 2 p.m.; Orthopædic Hospital, 3 p.m.

22. *Tuesday.*

Operations at Guy's, 1 p.m.; Westminster, 2 p.m.

23. *Wednesday.*

Operations at University College Hospital, 2 p.m.; St. Mary's, 1 p.m. Orthopædic Hospital, 3 p.m.

24. *Thursday.*

Operations at St. George's, 1 p.m.; Middlesex, 12½ p.m.; Central London Ophthalmic, 1 p.m.; London, 1½ p.m.

ORIGINAL LECTURES.

CLINICAL LECTURES ON DISEASES OF THE SKIN.

ILLUSTRATED BY COLOURED ENGRAVINGS.

By WM. JENNER, M.D.
Physician to University College Hospital, the Hospital for Sick Children, etc.

LECTURE VI.

GENTLEMEN,—In a former lecture I told you that all the diseases of the skin characterised by the presence of vegetable growths in the hairs are called by the generic name of Tinea. In my last lecture I described and showed to you several cases of one of the most common of these diseases, viz. Tinea tonsurans, the common ringworm of the scalp. To-day, I have to describe and show you a case of another species of Tinea, viz.—

TINEA FAVOSA,

fortunately a rather rare disease in England—I say fortunately, because it is an obstinate and very disgusting affection.

Tinea favosa is a disease of the hairy scalp. Now and then, however, it occupies other parts—thus this drawing was made from a patch on a girl's arm.

Be it situated on scalp, trunk, or extremities, the disease is primarily seated in the hair-follicles, and is characterized by dry brimstone yellow crusts, each crust being cup shaped, and having a hair running through its centre. The size of the crusts varies from a mere point to half an inch in diameter. The separate crusts coalesce as they increase in size and number, and then you have a large, dry, irregularly pitted crust. You will observe that the crusts are buried to some depth in the cutis, so that if I raise one from its place, I expose a depression of the cutis in which it was imbedded. The depressed surface is always redder than healthy skin, but only here and there is the cutis denuded of its epithelial covering. You may observe, further, that among the dry crusts are a few pustules. These pustules are not always present, they are an accidental complication. These pustules indicate the co-existence of impetigo. I have placed under one of the microscopes a little of the fluid from a pustule, and under the other microscope some of the dry powder from a crust. In the former are abundance of pus corpuscles and nothing else. In the latter the sporules and mycelium of the Achorion Schönleinii, and not a corpuscle of any kind. Do not fancy that the dry crusts commence as pustules; the crusts are dry from the moment they are first seen. Note the difference in form and size of the sporules and mycelium of the Achorion Schönleinii and those of the Trichophyton tonsurans. The sporules of the Achorion are oval, and comparatively large; those of the trichophyton spherical and very small. You can see the mycelium and sporules running upwards and ramifying in the hair which passes through the centre of each little sulphur coloured cup-shaped crust.

The steps of the disease are these:—first, there is thickening of the root-sheath of the hair-follicle, and accumulation of its secretion about its orifice. So long as there is nothing more than this you are not able to say that any disease exists; but let the sporules of the Achorion fall on the prepared soil, and the sulphur-coloured crusts of Tinea favosa are rapidly formed. The plant grows outwards between the layers of epithelium, downwards into the follicle, and, entering the hair near to its root, shoots upwards into its substance.

The Tricophyton tonsurans, the plant proper to Tinea tonsurans, grows into the hair-follicle, but its presence inflicts no permanent injury on the structures of the follicle. The Achorion Schönleinii, unless it be soon eradicated, destroys the follicle, and permanent baldness is the consequence.

The crusts of Tinea favosa have a peculiar, fœtid odour, and from the impediment they offer to cleansing the head, favour the occurrence of vermin. The pediculi are found chiefly in the fissures of the large crusts. Intolerable itching is often experienced. There is a variety of Tinea favosa in which the crusts are from the first amorphous, wanting in the cup-shaped character, and less bright in colour.

You remember what I told you respecting the relation which exists between herpes circinnatus and tinea tonsurans, viz. that the secretion in the former constitutes a favourable nidus for the growth of the plant which characterizes the latter. Now the same holds true in regard to the relation between Herpes circinnatus and Tinea favosa. Tinea favosa is, like all the diseases of its class, contagious, but the Achorion requires a favourable soil for its growth, you will therefore readily understand why it is that the disease rarely spreads in the Hospital. I had lately a case of Tinea favosa for some time under my care in the Hospital for Sick Children: not a child caught it till a case of Herpes circinnatus was admitted into the same ward. On several children rings of herpes circinnatus soon after appeared, and two of the children thus affected now caught Tinea favosa, and the crusts of the Tinea favosa occupied the centre of the patches of Herpes circinnatus. This drawing was taken from one of these children; and, as the case is of interest from its bearing on the pathology of the affection, I will read you the notes of the case descriptive of the appearances when the drawing was taken:—

"On the outer aspect of the right arm, just below the elbow, is a pinkish red patch, slightly elevated, nearly circular, and five-eighths of an inch in diameter. The centre of this patch is occupied by ten or twelve crusts of tinea favosa, the largest not more than a line in diameter, the smallest requiring a lens for its detection. The largest are distinctly depressed in the centre, the smallest are merely yellow spots. Through the centre of each crust runs a little hair. A few white scaly-looking points are scattered around the part occupied by the crusts. The circumference of the patch is covered by pretty closely set, flattened vesicles; the majority so small that they might escape observation, unless the part were examined with a lens."

On the right shoulder, the left upper arm, and the left leg, were patches of similar character.

At the upper part of this drawing (see plate) is represented the patch on the girl's arm of its natural size; the middle figure is a very good copy of the centre of the patch, as it appeared through an inch lens, while below is one of the crusts more highly magnified. Note that a hair passes through the centre of each crust.

Passing from the circumference to the centre of the patch, you will notice,—

1st,—A ring of the vesicles of Herpes circinnatus.

2nd,—Scales formed by the drying of the vesicles.

3rd,—Crusts of Tinea favosa.

With regard to these last, I may observe that some of the crusts are mere points, the disease being limited to the very orifice of the hair folicles. There were no pustules; not a trace of suppuration a sufficient proof that the disease is not pustular at its commencement.

When speaking of Tinea tonsurans, I told you if there were no such plant as Tricophyton, there could be no such disease as Tinea tonsurans; so in regard to Tinea favosa, I may now tell you, were there no such plant as the Achorion Schönleinii there could be no such disease as Tinea favosa. The soil requires preparation, but all the visible phenomena of the disease, those appearances which we call Tinea favosa, are the direct consequences of the presence of the plant.

The objects to be kept in view in the *treatment* are to remove or destroy the plant, and to improve the state of the secretions of the part which is its seat. As the subjects of tinea favosa are often strumous, you may find benefit from the administration of cod-liver oil, syrup of iodide of iron, calumba, rhubarb, and soda, and other remedies of the same class. But all other means will fail unless you destroy and remove the plant. For this purpose you employ some of the parasiticide substances, that is to say, substances destructive of vegetable life and at the same time you must remove by mechanical means so much of the plant as possible.

The crusts are to be removed by a bread and water poultice, or better still, by the continuous application of lint, dipped in a solution of sulphurous acid. Bichloride of mercury, dissolved in water or mixed with lard in the proportion of eight grains to the ounce, and acetate of copper mixed with lard, half-a-drachm to the ounce, are two of the most powerful parasiticides. A saturated solution of sulphurous acid is the remedy I employ, and in this manner: a piece of lint dipped in the solution is closely and constantly applied to the affected part, and this is covered, to prevent evaporation,

by oil silk, or by a second piece of lint spread pretty thickly with lard. If the disease be on the trunk or extremities, and general health good, it may be rapidly cured in this manner. Thus the girl whose case I have mentioned was well in a few days. But if the disease be seated on the hairy scalp, and the plant has entered the hair follicles, and shot up into the hairs themselves, considerable difficulty is experienced in bringing the parasiticides in contact with the plant, and as a consequence epilation is almost essential for permanent cure. If you pull out the hairs before the hair-follicle is destroyed no baldness follows. At first sight epilation may strike you as a very painful operation, but if well performed it is not so. Each hair should be grasped with a pair of forceps adapted to the purpose, just where it escapes from its follicle, and pulled sharply in the line of the direction of its insertion into the follicle. As the hairs are much less firmly fixed in their follicles than in health, epilation is so much the more easily effected. If the disease be limited in extent no practical difficulty exists to its cure by epilation; if it occupies the whole or a great part of the scalp, the cure requires much time and great patience. So long as a sporule or a branch of mycelium remains in a hair undestroyed, so long is it certain that the disease will return.

Before epilation, *l'huile de cade* is by many applied to the part from which the hairs are to be removed. It is said to diminish the sensibility, and loosen the attachment of the hair to its follicle. The old pitch cap was merely a quick mode of epilation, and not so painful as you would suppose. If Herpes circinnatus be present, the extension of the ring of vesicle should be prevented, and on their first appearance the small patches of Herpes should be destroyed with nitrate of silver.

Tinea favosa is the disease described by Bateman under the name of Porrigo lupinosa. The Porrigo favosa of William Bateman and Thompson is a species of impetigo. These excellent observers mistook the yellow crusts of Tinea favosa for dried pustules.

TINEA DECALVANS

is very readily recognised. The roots of the hairs atrophy till at length, being smaller than their follicles, they fall out. Commencing at a point on the hairy scalp, the disease spreads circularly till a bald patch of some size is formed. Now and then, the bald patches are irregular in form; still, even then the margin of the patch is usually scolloped, as though the large patch had been formed by the coalescence of several smaller patches. The disease may ultimately involve the whole scalp; nay, occasionally the hairs of the eyebrows and the eyelashes are similarly affected, and fall in like manner from their follicles. There is neither redness, heat, tenderness, nor any eruption on the bald patches; usually, indeed, the bald scalp is something paler than natural.

Tinea decalvans is common enough in children and young persons. It rarely affects those of more advanced age. The patches from which the hair has fallen are quite smooth. Do not confound the patches of Tinea *tonsurans* with those of Tinea *decalvans*. In the latter the surface of the patch is quite smooth—there is local baldness, and that is all; in the former the hairs look as if they had been cut off just above the point at which they emerge from their follicles.

I call this disease Tinea in deference to the statements of Bazin and others; for myself, I have never detected any vegetable growth on or in the hairs about to fall from their follicles. The plant, the Microsporon Audouini, is said to be found attached to the hairs just above the surface of the scalp. The atrophy of the bulb of the hair is considered to be secondary to the action of the plant. Willan called this disease Porrigo decalvans.

Here is a child on whose scalp are patches of Tinea decalvans. Note well the smoothness of their surface. Under the microscope are some hairs; compare the large bulb of the normal hair in the field of the one glass, with the withered point of the root of the hair removed from the border of a patch of Tinea decalvans, placed in the field of the other glass.

As to the *treatment*, if the patient be pale or weakly, you may give iron and cod-liver oil. This child is taking cod-liver oil, one drachm, and steel wine, two drachms, three times a day. Local stimulation is, however, far more important. Tincture of iodine is a convenient stimulant; it may be applied night and morning. A saturated solution of sulphurous acid I have found very efficacious. It should be applied constantly by means of a piece of linen soaked in the solution, and covered with an oil-skin cap. The linen requires to be wetted many times a day. Sometimes you will find the saturated solution of the acid too stimulating, and if so, it may be diluted with as much or more water, just so much diluted as that it may produce a little redness of the scalp, but no eruption. If the patches be small, tincture of iodine is the best application; when the disease is extensive and spreading rapidly, the head should be shaved, and the sulphurous acid lotion applied. If less powerful stimulants fail, blisters may be applied. As the hair-follicles are seriously at fault, and new hair has to be formed, a cure cannot be quickly effected. The first sign of improvement is the presence of a little downy hair on the patch. This down is, after a time, replaced by better formed hair, and this, again, by still more perfect hair. The baldness is never permanent.

MENTAGRA,

or Sycosis, as it is often called, is a disease of the beard, moustache, whiskers, and inner surface of the nares, in which a little fungus finds a nidus between the root of the hair and the wall of its follicle. The plant is the Microsporon mentagrophytes, and it makes its presence known by the inflammation it excites. The inflammation causes thickening and induration of the tissues around the follicle, and suppuration of the follicle itself. As the disease originates in the follicle a hair may be seen to traverse the centre of each pustule. The pus and epithelium about the orifice of the follicle dry into a thick brownish scab. When the scabs are numerous, and the parts about tuberculated from the swollen and irregular induration around the follicles, the part affected with pus being supposed to have some resemblance to the pulp of the fig; hence the name sycosis. Between the scabs we often find little scaly particles formed of epithelium. Do not confound a variety of impetigo which I shall presently describe to you, with mentagra. The induration and swelling of the tissues is trifling in impetigo. Acne of these parts also may be taken for Sycosis, but in Acne the induration is greater than in Sycosis, and the suppuration less rapid. There is no vegetable parasite in the hair follicles in impetigo, nor in the sebaceous follicles in Acne.

Mentagra is often a very obstinate affection. The *treatment* of this disease is to be conducted on the same principles as those of the other affections of its class. Substances destructive to vegetable life are to be applied to the diseased skin; and as the plant is *in* the hair-follicles, they must be applied in a form fitted to enter the follicles. An ointment of lard and corrosive sublimate, in the proportion of a grain to the drachm, is sometimes very useful. The white precipitate ointment of the London Pharmacopœia may effect a cure. Dr. Thomson recommends strongly an ointment composed of a scruple of iodide of sulphur and an ounce of lard. Warm fomentations and poultices, by removing the scabs and allaying the inflammation, afford much relief to the patient. The condition of the digestive organs must be attended to, and purgatives, tonics, and antacids exhibited as required. A good and generous diet is usually necessary. Epilation is sometimes essential for effecting a cure. I had a case under my care some time since, in which the disease was seated in the hair-follicles, just at and within the orifice of the nares. I cannot tell you how many quarts of cod-liver oil, gallons of decoction of sarsaparilla, ounces of quinine, iodide of potassium, etc., the patient swallowed, nor how many pounds of ointments innumerable he had applied. He was a druggist, and had kept a careful record of all that had been prescribed for himself, which he read over to me. It was a most ludicrous list, and I was not surprised at his desire to

"Throw physic to the dogs."

He was well pleased to submit to the removal of the hairs by a pair of forceps, rather than to have to take more drugs; and he was still better pleased when he found how soon the disease yielded to this method of treatment.

I have only one other disease of this class to bring before you, and that is

CHLOASMA,

or Pityriasis versicolor, as it is called. But this latter is a very bad name, seeing that there is no vegetable growth present in Pityriasis rubrum or Pityriasis capitis, the other two diseases to which the generic name Pityriasis is applied. Chloasma is a very common disease. Its most frequent seat

is that which it occupies in this man, viz. all those parts of the neck, upper arms, chest, and abdomen, which are covered by the flannel jacket. The axillæ usually escape, as you see they have in the case before you. It is curious to note how completely the disease is, in this and many other instances, limited exactly to the parts in contact with the flannel. In such cases its occurrence is favoured by want of cleanliness.

Many people are so dirty in habit as to wear the same flannel next their skin for a week, a fortnight, three weeks, and among the poor even a month. And it is by no means an uncommon thing for them to wear the same flannel night and day, not once removing it from the moment it is put on till the time it is considered to be desirable to have it washed. The consequence of such habit is an accumulation on the surface of the skin of its secretion and of undetached epithelium, and the consequent formation of a nidus favourable to the growth of the Microsporon furfurans. This plant finding, then, in the epithelial accumulation saturated with the secretions a fitting soil, spreads under its outer layer in all directions, and by its presence produces the pale yellowish brown patches characteristic of Chloasma. At the margin of the larger patches, as you see, are numerous detached brownish-coloured circular spots. The spots are scarcely raised above the surface of the skin. Like all the other vegetable parasites, the Microsporon furfurans exhibits a disposition to spread from the point on which it alights uniformly in all directions. Hence the circular form of the patches. The large irregularly-shaped patches are formed primarily by the coalescence of the smaller. If we rub one of the brownish patches we detach a number of minute scales, and see that the cutis under is somewhat redder than the adjacent skin. The only annoyance the patient experiences is itching of the part on exercise or when heated, and the consciousness of having very unpleasant-looking skin beneath his jacket. Robin, a celebrated French microscopist, who has written a very excellent book on the natural history of the vegetable parasites, never succeeded, he tells us, in finding a parasite in Chloasma, but he failed simply because he did not look for it in the right way. Under the microscope are some scales rubbed from this patient's diseased skin. *You* can see the mycelium and sporules of the Microsporon furfurans at a glance. Had I placed the scales in a little water only, as I did the pieces of crust of Tinea favosa, you, like Robin, would see no trace of the plant; but I have put the scales in a drop of liquor potassæ. The alkali renders the animal tissue of the epilethium transparent, but exerts no influence on the vegetable, and the consequence is that we see at once the perfect plant. The Microsporon furfurans grows on the under surface of the epithelium scales, and you never find any of it projecting beyond the margin of the scales.

To cure the patient you must reform his dirty habits, supposing him to be of such. Make him change his flannel frequently, and never let him sleep in that he wears during the day. Then he must wash daily, not merely his hands, but his whole trunk and extremities, and bid him use hot water and strong soap. After washing, let him rub the surface well with a flesh-brush, taking care that the latter is itself often cleansed. In addition to these frequent and careful ablutions and frictions, by which a large quantity of the fungus is removed, the patient should bathe the part affected with a parasiticide lotion, composed of twelve grains of bichloride of mercury to four ounces of water. The lotion should be allowed to dry on the part. A saturated solution of sulphurous acid may be applied freely with the same object, viz. to kill the ungus. A lotion of sulphuret of potassium, 1 dr. to the pint of water, will cure, but then it is offensive. Some tell us that a course of arsenic is essential to the permanent cure, but I have not found it so.

No doubt some persons who are very cleanly in their habits, and some who are as cleanly as their clear-skinned neighbours, suffer from Chloasma. One concludes, therefore, that in some instances the secretions of the skin are abnormally favourable to the growth of the fungus. In some of these cases arsenic may be of service; so too is cod-liver oil.

Phthisical people often have patches of Chloasma on their chest, etc. I suspect this is the result, partly at least, of want of cleanliness. Persons delicate in the chest, as they call it, are frequently afraid of washing more than face and hands. Again, they usually keep themselves closely wrapped in flannel, and are something too fearful of changing it; and yet further sweating alternating with heat of skin is common in such cases—conditions favourable to the formation of a good nidus for the Microsporon furfurans.

Like all the parasitic diseases, Chloasma is contagious.

With reference to the nomenclature of these diseases, characterised by the presence of vegetable parasites, remember that,—

Tinea tonsurans was called by Willan and Bateman, Porrigo scutulata.

Tinea favosa was called Porrigo cupinosa.

Tinea decalvans was called Porrigo decalvans.

Chloasma was called Pityriasis versicolor; while th

Porrigo favosa of the same authors was a variety of Impetigo.

ORIGINAL COMMUNICATIONS.

APHORISMS AND OBSERVATIONS UPON CERTAIN DISEASES OF THE ORGAN OF SIGHT.

By W. R. WILDE, F.R.C.S.

Surgeon-Oculist in Ireland to the Queen; Surgeon to St. Mark's Ophthalmic Hospital, Dublin.

(Continued from Vol. XXX.)

As each Medical session commences, and fresh batches of students enter for the clinical instruction at St. Mark's Hospital, I think it advisable to offer some remarks upon the mode of examining eyes, the class of diseases met with at the Institution, and in particular, the remedies employed, and their mode of application or administration, etc.

By some these observations may be deemed trivial, but at the present day, when ophthalmic medicine occasionally savours of puffing if not of charlatanism, and when we hear and read of operations performed abroad and at home for the cure of disorganised eyes, and incurable diseases of the organs of sight, a few homely practical remarks may not be out of place. Some practitioners of experience will, I feel assured, also acknowledge that they have had in many instances occasion to review and revise their opinions respecting the employment and mode of action of the remedies they are in the habit of prescribing. Indeed, it would be well if we all occasionally attended more to therapeutics than we do, and tested and proved the action of remedies, many of which are, I feel assured, prescribed in routine or according to some authority ancient or modern. My readers will also please to remember that the following remarks are intended chiefly for, and have been from time to time addressed to, the gentlemen who attend my clinique. Upon these subjects the following notices may be useful.

With respect to *Depletion* I may observe, that although it is more frequently required in eye diseases than in any other class of local affections, I have not had occasion to use the lancet for many years past. The description of patients at this Institution labouring under violent inflammations of the eyes, such as iritis, purulent ophthalmia, or the results of injuries or operations, are, with a few exceptions in country patients, very bad subjects for phlebotomy. Furthermore, all the good which can be derived from lessening the action of the heart and arteries, may be achieved by cupping, which, while it lowers the system generally, also relieves pain, and lessens the turgescence of the ocular vessels much sooner than a general bleeding would; it can be repeated several times in twenty-four hours, and an amount of blood removed with impunity to the constitution, which, if taken from the venous system in the ordinary way in the same space of time, would leave the patient debilitated for weeks. As pain is one of the chief indications for depletion in eye affections, so it is more effectively and speedily relieved by cupping than by general bleeding; moreover, in such cases the pulse is often not at all accelerated. I look upon cupping the temple properly as one of the most powerful remedies in the treatment of ophthalmic disease, the effects of which are quicker, more decided and permanent, than either general bleeding or the application of leeches. To be, however, effective, it must be dexterously performed by an experienced hand, and in the proper locality, in the temporal fossa, above the zygoma,

neither so far forward as to bring the glass upon the turn of the frontal bone, nor so much backwards over the ear as not to produce what is required without a large quantity of blood being taken away. In treating inflammations resulting from operations, the assistance which the ophthalmic Surgeon derives from cupping is incalculable. Moreover, in many cases the cupping can be repeated in a few hours, and a sufficient quantity of blood removed to relieve pain, without having again recourse to the scarificator. It also leaves no mark—a matter of some importance, especially with females. As cupping has become a special art, I offer no observation on its mode of performanee, but strongly recommend all who can to avail themselves of the advantage, to learn how to cup the temple.

Before dismissing this portion of the subject, I cannot help alluding to a practice, which I have not myself witnessed, but the traces of which I was in the habit of seeing daily. I allude to the cupping and cross-cupping cicatrices left on the nape of the neck, and often between the scapulæ of soldiers discharged the service for ophthalmia. Hearing me expatiating once on the inutility of cupping a man between the shoulders for an attack of ophthalmia, an old army Surgeon who was present whispered to me, "It may not be the best thing for sore eyes, but it prevents the fellows re-enlisting without being recognised." I am happy to say that during the last few years I have observed less of this practice.

Another method of local depletion is by leeches, which is also a most valuable adjunct in the treatment of ophthalmic diseases, and in places where a dexterous cupper cannot be had recourse to, it is of paramount importance. I may, however, remark, *in limine*, that in violent inflammation of the eyeball, four ounces of blood—which may be extracted from the temple within five minutes—is worth ten leeches, the application and adhesion of which will occupy above an hour. Moreover, in leeching we run the chance of erysipelas, œdema, ecchymosis, and inflammation of the bites, all of which we avoid by cupping. A Physician or Surgeon orders ten or a dozen leeches to be applied around the eye of an adult, who either has the application made by an apothecary, or buys the leeches, and has them applied at home. Suppose we come to visit him the next day; what is the appearance of the parts?—two or three of the leeches crept high up, and attached themselves immediately beneath the hair; others wandered to different parts of the forehead, some two or three inches distant from the seat of the disease; one or two had attached themselves to the upper eyelid, and the remainder had spread over the cheek and side of the face, from the lower edge of the orbit to the angle of the mouth. The upper eyelid is œdematous, and there is a mottled ecchymosis beneath the lower lid, extending down the side of the face. But little comparative ease has been experienced, and the patient complains sadly of the fatigue he has undergone during the two hours spent in leeching and slopping, together with the difficulty in arresting the hæmorrhage. To be effective in relieving inflammation of the eye, leeches should be applied over a small surface, and as near as possible to the seat of the disease; I therefore, when prescribing this remedy, generally mark the spot with ink. A space of about an inch along the outer and lower edge of the orbit will admit of six or eight leeches, and the remainder will be found most beneficial if attached to the space above the insertion of the zygoma, along the outer edge of the orbit. In this locality, over the edge of the malar bone, I also find that they are less likely to produce œdema or ecchymosis; and their bites, if inclined to bleed, can be arrested much more easily than elsewhere. When it is necessary to apply a leech to a child, it is quite monstrous to find, upon examining the case next day, that the animal has been allowed to attach itself to the ala of the nose, or halfway down the cheek. It is a waste of Medical opinion, a waste of time in applying the remedy, a waste of money in procuring it, and an unnecessary waste of the child's blood. In such cases it is indispensably requisite to mark the spot with ink. Although I do not intend entering upon the modes of inducing leeches to bite, I may remark, that a brass thimble, such as just holds a leech, is the best mode of proceeding in such a case. The ecchymosis, and, in many cases, the œdema and erysipelatous redness which often follow leech-bites, may be avoided by not allowing the animals to hang down the cheek or drag upon the skin, but supporting them with a towel or sponge; in doing this the recumbent position will be found most convenient. Some persons, however, possess such a peculiar idiosyncrasy that red œdema will supervene before the leeches have fallen off. When I was a midwifery pupil it was a common practice to apply a leech to the most prominent part of the florid swollen upper eyelid, in cases of purulent ophthalmia of infants, and I have often seen great difficulty experienced in arresting the hæmorrhage consequent thereon. Physicians occasionally direct a leech to be applied to the septum or mucous membrane of the nose; I have not much experience, and still less faith in such a measure. I occasionally meet cases in which the application of a couple of leeches to the mastoid process has been prescribed for the relief of ophthalmic disease, but I have not seen any good results from such practice except in cases of amaurosis depending on intracranial disease.

The application of one or two leeches to the conjunctival surface of the palpebræ is often attended with great benefit in certain chronic affections of the eye, particularly if repeated every second or third day; but this remedy requires especial care and nicety in its employment; for if the leech is allowed to attach itself to the edge of the lid, it frequently produces an irritable sore, and sometimes such a cicatrix subsequent, as distorts one or two of the ciliæ; and if allowed to attach itself to the loose conjunctiva reflected from the lid to the globe, will invariably produce an extensive ecchymosis. Upon two occasions I have seen leeches applied to the globe itself. The subconjunctival effusion of blood which followed was one of the most formidable looking appearances in the eye I can remember. In applying a leech or two to the inside of the upper eyelid, it must be everted in the usual way; but the amount of irritation consequent on keeping it thus turned out, and its mucous membrane exposed for so long a time, is scarcely counterbalanced by the good done by the leeching. Not so with the lower lid; the patient himself can be taught to keep the lid sufficiently everted with his own finger until the leech has adhered; but, to obviate the difficulties already alluded to, the animal should be put on with a glass tube in the mid-space between the tarsal edge and the hinge-like fold of conjunctiva. Two or three may be applied in this manner many times in succession with impunity to persons who invariably get erysipelas after their application to the skin. In applying leeches over the lachrymal sac, great care should be taken with respect to their exact position, otherwise they will be quite ineffective. With respect to the application of cupping-glasses over leech-bites, it is manifest that it can only be done when they are applied over the temporal fossa, and it is, after all, an ineffective mode of cupping. Besides all this, cupping is more economical in a public institution than leeching.

I have not opened the temporal artery for some years past.

Scarification of the palpebræ was a practice much in vogue some years ago, but is now chiefly had recourse to by the surgeon or general practitioner, who performs the operation by pressing outwards the lower lid, and drawing a lancet across the swollen vessels of the conjunctiva. I have such little faith in its efficacy, that I have not employed it for some years past, and I have not seen much good result from it in the hands of others. The quantity of blood which can be taken away by this means is very small, and the hæmorrhage is soon arrested by the apposition of the lids to the globe. In children, this means of procuring blood from the eye is a matter of difficulty, and not altogether devoid of risk. The division of a single vessel or an enlarged plexus situated on the globe being considered malpractice by most ophthalmic Surgeons at the present time, I need not here allude to the matter. Upon scarification of the superior palpebral conjunctiva, in cases of granular lids, I shall have occasion to speak when describing that affection. In cases of chemosis, incisions should be made in the elevated conjunctiva with a sharp-pointed knife, or, what is much better, portions of that membrane should be excised with a pair of curved scissors. In either case beneficial hæmorrhage follows; but when compared with the relief given to the tense membrane, and the evacuation of the subconjunctival effusion, the bleeding plays an insignificant part.

Next to depletion, one of the most useful remedies, either in acute or chronic diseases of the eye, is *Counter-irritation*. Notwithstanding the many recommendations of late years for producing immediate vesication by various fluids, I must confess to having more faith in the efficacy of the good old emplastrum lyttæ, allowed to "rise" gradually, than in any other application intended for a similar object. For oph-

thalmic purposes blisters are usually applied over the brow, upon the temple, or behind the ear; but, except in cases of amaurosis, or the diseases usually classed under that head, I have long since lost faith in the efficacy of blisters applied in the latter locality. There is no remedy in more general use in diseases of the eye than blisters, and consequently they are often inappropriately applied. How frequently do we see a child of two or three years of age labouring under catarrhopustular ophthalmia, and an irritable state of the skin of the lids and cheeks, made much worse by the application of blisters! As a general rule, blistering the brows or temple is not as beneficial in diseases of the conjunctiva as in those of the sclerotic and cornea. Indeed, in children under six or eight years of age, blisters, except applied upon the top of the head, or on the arm, are not as applicable to the treatment of ophthalmic diseases of any kind as in persons of a later age. In congestion of the eye, as well as in many other diseases of a catarrhal or chronic character, small blisters applied in succession to the superciliary ridge, and down to the zygoma, will be found a powerful adjunct to our other treatment. One of the most decidedly useful remedies in diseases of the eye is the blister-issue, made by the application of a portion of emplastrum lyttæ, the size of a halfpenny, on the hollow of the temple (one-third of it extending over the hairy scalp shaven for the purpose); allowed to remain on till it has completely vesicated the surface, which should then be denuded of its raised cuticle with a pair of forceps or tweezers, and the exposed space dressed with No. 2 Albespeyre's paper. Simple as this may seem, and explicit as these directions appear to be, yet this blister-issue is not so easily established, for unless dressed for the first two or three days by an intelligent apothecary, it soon heals up, owing to the circumstance of the vesicated cuticle not having been fully removed in the first instance, but allowed to fall back upon the blistered surface, where it intervenes between it and the French plaster. As in many cases it is necessary to keep up a discharge for weeks or even months, and as persons in the upper ranks of life often become impatient of the annoyance which it produces, care should be taken to make the application as comfortable as possible. The discharge, which is sometimes very profuse, pours down the cheek; the Albespeyre (which should be applied daily or twice a day if necessary) is itself apt to slip down and bring the issue surface below the zygoma; or that surface, if not attended to, soon becomes covered over with a whitish exudation, and dries up. When this latter occurs it should be scraped away with a pencil of sulphate of copper, and a small poultice afterwards applied for a few hours. To prevent the discharge soiling the person, as well as to keep the Albespeyre in its place, a bit of linen or fine lint a size larger than the former should be applied, and over that a piece of adhesive plaister, or isinglass spread on sarsenet, which may be stained the colour of the skin. In the present fashion of wearing the front hair in females, the temple issue is borne with greater impunity than by men. In ordering the papier d'Albespeyre, care should be taken to see that it is fresh, for if it is old, and has been much exposed to heat, as in an apothecary's window, and has become of a yellowish-brown colour, it is good for nothing, the cantharadine having evaporated. (a)

It is very difficult to get the lower classes to keep this surface discharging, and in labouring men almost impossible. Besides this, papier d'Albespeyre is an expensive application, and Brown's vesicating plaster is not so efficacious. For dressing issues I know nothing, except Albespeyre, so good as an ointment composed of equal parts, of unguentum sabinæ and unguentum lyttæ.

Blistering the top of the head is an old woman's cure, well known in this country; the top, not the vertex, having been shaven, a plaster is made of powdered alum, salt, and white of egg, which is closely bound upon the head, and left on as long as the patient will bear it. The late Solomon Richards, who had an extensive practice in diseases of the eye in this city, used frequently to recommend this remedy. In cases of obstinate strumous ophthalmia, with much intolerance of light, and in cases of double corneitis, I do not know any remedy which exhibits more marked and immediate benefit than a blister applied over the anterior fontanelle. Leaving about an inch of the hair in front, a circular space about four inches in diameter should be closely shaven, and the blister applied thereto, and allowed to remain on between night and morning; —this is but a modification of the popular remedy. It may be repeated several times with intervals of about a week. In strumous disease, and the intermittent ophthalmia of children, permanent benefit will be derived from the establishment of a blister-issue upon the arm, about the insertion of the deltoid; it should be the same size, and kept open in the same manner as on the temple. In cases of violent ophthalmia, either external or internal, a blister to the nape of the neck, and extending from ear to ear, is often attended with signal benefit; and in amaurosis depending on cerebral disease, blisters in this locality, or on the crown of the head, are usually indicated.

Wth respect to setons and pea issues, the former is only applicable to the nape of the neck; there it often proves serviceable in cases of amaurosis, and in chronic disease of the internal tissues of the eye. Pea issues in the temple are worn by many persons with comfort for years. The pea issue in the arm seems to have fallen into disuse compared with the amount of its employment in former times. Possibly the cases to which it is applicable are not so numerous as in former times. I certainly think the cases of scrofulous ophthalmia of some years back, and which were chiefly characterised by intolerance of light, are not so numerous as formerly. Tartar emetic ointment may be applied to the shaven scalp in like manner as a blister, but I do not think it is as efficacious. Stimulating embrocations rubbed upon the temple and over the brows are very useful, particularly in old persons;—the compound camphor liniment is one of the best of these; and when we wish to keep the pupils dilated, belladonna first rubbed into a paste with a little water, and then added to a liniment consisting of equal parts of it and soap liniment, with a little spirits of rosemary, will be found a very useful application. The ethers enter the composition of several local stimulant applications, but to be effective such remedies must be applied with friction. Croton oil, owing to its liability to extend its effects, is quite unsuited for any of the purposes specified in the foregoing; and mustard sinapisms do not, in my opinion, afford much relief. Pomades and ointments of various kinds are much used as local stimulants by continental oculists, but they are generally of a very innocuous character; one of the last of these which I examined came from the neighbourhood of the Rhine, where the patient, a lady with incipient cataract, had been spending some of the summer months with "a noted curer of cataract without operation." It was composed of palm oil, and proved quite as efficacious in the case alluded to as such remedies usually do. I occasionally employ an unguentum veratriæ, of the strength of about five grains to one drachm of spermaceti ointment, and one of prepared lard, as a stimulant in certain neuralgic affections of the eye, increasing the quantity employed, as also the strength of the ointment, as the part becomes accustomed to it. The veratrine should be rubbed to a smooth paste with a few drops of oil before it is mixed with the ointment.

Counter-irritating the skin of the upper eyelid is often useful in the ophthalmia of young persons attended with much photophobia and lacrymation. Painting the part with tincture of iodine has been recommended by some, but I have not found that application nearly so useful as the employment of the solid nitrate of silver, according to the plan originally recommended by the late Mr. Hocken, because I believe the caustic acts specifically upon the conjunctiva with which the skin is continuous, as well as by its use as a blister. Both these applications are, however, very variable in their efficacy.

(a) Most practical men know that heat has this effect on cantharadine. When a patient tells me that the blister did not rise, I generally ask, "Perhaps you did not put it to the fire?" when I am invariably answered, "Oh yes, we *hated* it before we put it on."

ON THE

CIRCULATION OF THE BLOOD, AND THE FUNCTIONS OF THE RIGHT AURICLE.

By THOMAS SHAPTER, M.D.

Physician to the Devon and Exeter Hospital, etc. etc.

An examination of the chest of M. Groux, the gentleman in whom there exists the congenital fissure in the sternum, has led me to certain conclusions respecting the heart, and the circulation of the blood through it, which differ somewhat rom those generally accepted. Before stating these I woulds firfst assume that the aorta traverses the upper third of thi

fissure; that the dilating tumour which occupies the middle third is the right auricle; and that the pulsation seen and felt in the lower third is caused by the right ventricle. The weight of authority bears out the above conclusions. Nevertheless, as there are those (and they of no mean authority) who have maintained, severally, the tumour occupying the middle space of the fissure to be, in the one case, the aorta, and in the other, the right ventricle, I will briefly state why, beyond the organs occupying the position properly belonging to them, I assume them to be as above stated.

The pulsation which is felt in the upper third of the fissure communicates to the finger the usual character of that of the aorta, and on auscultation the double sounds are heard, but the second is the louder of the two; the undulating tumour occupying the middle third is capable of larger and more irregular dimensions than is consistent with the idea of the aorta; the impulse communicated to the finger is not that sharp blow which this organ communicates, and the subsequent diffused undulatory movement is entirely different from the decided contraction of this vessel; moreover, on auscultation the first sound is more audible than that of the second. In the lower third the "*ictus*" which is there seen and felt has those characteristics, both as to appearance and feeling, with which we are familiar when the "ictus" of the left ventricle impinges on the intercostal spaces of an emaciated person.

The phenomena, which I have witnessed in this case bearing upon the point, I desire to establish, are,—that the sudden enlargement of the vessel in the middle third is synchronous with the contraction (ictus ventriculi) of the lower third; that this sudden enlargement is immediately followed by its extremest diminution; that at this point of extremest diminution it still exists as a vessel distended with fluid; and that this distension continues till the sudden enlargement again takes place: that the enlargement and the passive state of distension are capable of being severally increased, both in breadth and in length, by various means; among others by pressure over the region of the liver; that the "ictus" is at the precise moment of its greatest enlargement, and therefore synchronous with the "ictus" of the ventricle; that it is not in character like that of the muscular blow of the ventricle, but communicates only the sensation of the succussion of a fluid; that at the moment of the greatest diminution there is no "ictus;" that at no time does this vessel present the appearance and communicate the sensation of a distinct or perfect active muscular contraction, such as takes place on the contraction of the ventricles or the aorta; that at no time is this tumour or vessel emptied or devoid of a fair amount of fluid contents; that after the sudden diminution which takes place subsequent to its greatest enlargement, there exists a somewhat prolonged period, during which an undulatory movement is presented.(a)

From the above facts, and my observation of them does not materially differ from what has been recorded by others, but more especially by Drs. Snow and Pavy in former numbers of this Journal (vide *Medical Times and Gazette*, Nov. 21 and Nov. 28), I am led to infer that, as regards the heart, the circulation of the blood is more simply effected than is usually considered to be the case; that, in fact, the heart proper is ventricular, and ventricular only; and that the circulation of the blood through the heart mainly depends upon its ventricular exhaustion and impulsion. The auricle, on the other hand, is rather to be considered as an appendage proper to the venous system, and not as appertaining to the heart, and, without ignoring the influence of the capillaries and of the veins generally (feeble though this be), that auricular contraction is not an active agent in the movement of the blood. (b)

These conclusions I ground on the fact that the whole phenomena witnessed show that the greatest size of the auricle is not induced by a sudden influx of blood from the cavæ (c), but on the contraction of the ventricle, by the upward pressure of the flaps of the tricuspid valve when propelled into the auriculo-ventricular axis; hence the blood then contained within the auricle is ponded or regurgitated back. The relaxing of the valve and the expansion of the ventricle, whereby the exhausting or suction power of the heart is exercised, immediately relieve the auricle of this undue tension. Its normal condition of a full, but not of an over-distended vessel, is then restored. In this state it continues during its period of rest to receive blood from the cavæ, and to deliver it into the expanding ventricle, till this latter is again filled, and again contracts upon its contents. In the above we see exemplified, as regards the auricle, the phenomena of elasticity, rather than those of active muscular contractility, while the ventricle distinctly exemplifies this latter. The normal state of the auricle is that of an open tube containing fluid, and this normal state is disturbed by the hydrostatic force of an increased amount of fluid, but is regained by the elasticity of its coats. Supposing this view to be correct, it is then probable that the musculi pectinati act, firstly, in preventing undue distension, and, secondly, in restoring the auricle to its normal dimensions.

The ordinary explanation of the function of the auricle is that the auricle contracts on the blood contained within it, and propels it into the ventricle. There are two cogent reasons against this conclusion; first, it would assume that the auricle contains blood enough for the supply of the ventricle which, as is universally admitted, it does not; and, secondly, the absence of any sufficient valvular apparatus at the portal entrance to the auricle or where the venæ cavæ deliver themselves into the sinus. This alone would militate against the assumption, for not only is it against the whole principle of the circulation, but in fact the contraction of the auricle would as equally force it into the cavæ as into the ventricle.

Without discussing what may be the motive power exercised upon the blood in its course through the veins, how much may be due to capillary force, and how much to an elastic or even to a contractile power proper to the veins themselves, I here hazard the opinion that the auricle fulfils two evident conditions—the one, in connexion with the venæ cavæ and sinus, of being the ready vessel of supply whence the ventricle, or heart proper receives the blood it requires; the other, that of being an elastic, expanding vessel, and representing one of those enlargements which invariably accompany the valves of the veins, whereby the blow of the ventricle and the sudden contraction of the valves on the incoming stream of blood are compensated for; and that any muscular power it may exert on the propulsion of the blood is only secondary.

Exeter, 5th Dec., 1857.

(a) Cruveilhier had the opportunity of seeing the heart of the human subject which had escaped through a perforation in the superior part of the sternum. His observations remarkably accord with the above. "The diastole of the ventricle had the rapidity and energy of an active movement, triumphing over pressure exercised upon the organ, so that the hand, closed upon it, was opened with violence. This is an observation of great importance, but of the cause to which this active dilatation is due no definite account can be given. It may partly be explained, perhaps, by the elasticity of the tissue, interwoven with muscular fibre in the substance of the heart; and this may be the cause of the first ventricular dilatation, the second being produced by the ingress of blood occasioned by the auricular systole. But the dilatation of the auricles appears to be much greater than can be accounted for by any *vis a tergo* (which, as will hereafter appear, is extremely small in the venous system), or by the elasticity of its substance; for it was observed in this case to be so great, that the right auricle seemed ready to burst, so great was its distension, and so thin were its walls."—*Carpenter's Physiology*, p. 557.

(b) This appears to be also the opinion of Dr. Pavy, who says, "The right auricle never empties itself; indeed, with the exception of the appendix, which is but a very small portion of it, it looks like a large sinus, or a bulging between the two cavæ, with no more power of emptying itself than either of these veins."

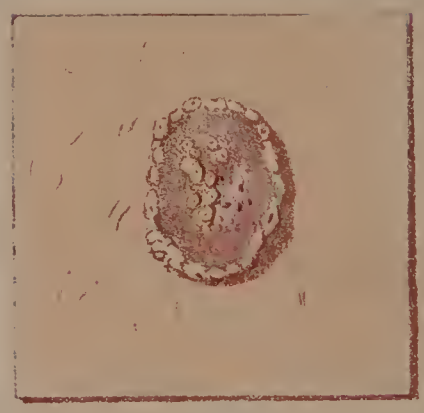
(c) In Cruveilhier's case, the large veins near the heart contracted simultaneously with the auricular systole, and not with its diastole, so that they had no influence in causing its dilatation. The same conclusion may be inferred in the case of M. Groux.

ON THE TREATMENT OF PARALYSIS BY ELECTRICITY.

BY J. ALTHAUS, M.D.

From a large number of paralytic patients I have treated by electricity, I select the subjoined cases to prove the result of my experience, viz. *that electricity by induction is capable, not only to maintain and improve muscular nutrition in the paralysed limbs, but also to restore the lost mobility to them*, whether the paralysis may have resulted from apoplexy or from the influence of lead upon the system, or from concussions of the nerves, or from rheumatism, or from other causes, which are sometimes difficult to determine.

To avoid repetition, I state at once, that in the treatment of



Crusts of Tinea favosa in the centre of a patch of Herpes circinnatus.

Centre of the same patch, as seen with an inch lens.

A single crust from the same patch, more highly magnified.

[Medical Times and Gazette, Dec. 26th, 1857.]

paralysis I always employ the current of the first order of the apparatus of induction, which acts chiefly on the contractile power of the muscles, only a little on sensibility, and not at all on the retina.

1. *Case of Hemiplegia resulting from Apoplexy.*

Richard V., Esq., aged 57, of originally vigorous and plethoric constitution, but now somewhat debilitated by an antiphlogistic treatment; has never been subjected to any serious illness, with the only exception of pneumonia, from which he soon recovered. Six months ago he had an apoplectic attack, accompanied with loss of consciousness for nearly three hours, and with remaining paralysis of the right side of the face, the tongue, the right arm and leg. He did not know how this attack was brought on. He had sometimes suffered from palpitation of the heart, but the sounds and the volume of the heart are quite normal. He has not indulged in excesses of any kind, but his father died from apoplexy. The paralysis of the cheek and tongue disappeared about three months after the attack had taken place, and the muscles of the arm regained also some mobility. He writes, however, only with a quivering hand, and cannot well manage to hold the spoon, fork, and knife; he complains chiefly of his walking being greatly impaired.

His judgment and memory are not the least disturbed; no pain in the head nor in the limbs. The cheek is not drawn to the side, nor does the tongue deviate from the median line. The movements of the eyes are quite normal. The speech is going on perfectly well. The skin of the right arm and leg is cold and flaccid. Pulse 76, weaker in the right than in the left side. As to the state of sensation, there is a feeling of numbness in the right arm and leg, and the prick of a pin is not so well felt as it ought to be. The muscles of the right arm and leg are relaxed, and have a smaller volume than those of the left. The motion of the extensors is much more impaired than that of the flexors. There is not the least rigidity of the muscles, neither in the upper nor in the lower extremity. Passive extensions of the forearm upon the arm, and of the leg upon the thigh, may be done without any resistance felt on the part of the muscles. This relaxed state of the muscles, together with the fact that six months have elapsed since the attack, I thought sufficient to prove that there did not exist any more intracranial irritation, and the cicatrix, whether in the corpus striatum, or in the optic thalamus, or anywhere else, having been duly formed. As it may be fairly supposed that in such cases very often the seat of the paralysis is no more in the injured brain, but in the muscles impaired by the long rest they have necessarily taken after the attack, I saw no objection to the electric treatment, and applied Faradism by means of wet sponges thrust in metallic cylinders, the excitors being held as close as possible to each other, and the intermissions of the current of induction being made rather slow. The first and second times when I applied Faradism, there was no muscular contraction to be observed in the leg, and very little in the arm. It was only in the third *séance* when I perceived feeble contractions of the muscles coming on. I now continued the application every other day, and after sixteen *séances* the volume of the muscles was increased, the circulation was reintegrated, for the heat was the like in both extremities, and no difference was to be felt in the pulsations of the right and left radial artery. Writing as well as walking had become much easier, but not yet quite so easy as it had been before the attack. I suspended, however, the treatment, being taught by previous experience that it is not well to continue the electric stimulation too long in cases of paralysis resulting from apoplexy.

Remarks.—Rigidity of the muscles existing after an apoplectic attack, always indicates a state of intracranial irritation, and that the cicatrix has not yet been formed. This cannot be done, according to the facts suggested by pathological anatomy, before at least three months have elapsed after the paralysing lesion has taken place. Therefore, the beginning of an electric treatment, which is essentially exciting, before the end of this period would possibly induce a fresh attack, and might even kill the patient. In cases of paralysis resulting from apoplexy, the excitors are to be held as close as possible to each other on the wet skin, in order to limit the electric power in the muscles which really want the electric stimulus. The intermissions of the current of induction are to be made slow, because rapid intermissions act always on the sensory nerves, and thereby are capable of producing irritation of the centres of the nervous system. When the excitors are held removed from each other, so that the electric current passes through the length of the limbs, for instance, when one excitor is held in the right and the other one in the left hand; or when, as Dr. Marshall Hall proposed to do, both hands of the patient are put into a basin filled by salt water, and both feet in another basin containing the same, the intermittent current of a battery of Cruikshank being directed to the two basins; by these and similar proceedings arise always painful and irregular muscular contractions, not only in the paralysed muscles, but also in the healthy ones. The electric current passes by means of the sensory nerves of the skin to the posterior columns of the cord, and in this way produces reflex movements from the anterior columns. It needs hardly to be said that every irritation of the nervous centres must be carefully avoided in persons who have suffered from apoplexy.

Dr. Marshall Hall's remarks on the state of muscular irritability in paralysis resulting from a disease of the brain, are right in so far as they are applied to rigid muscles, and so long as an irritative process within the cranium is going on. They are wrong, as regards paralysis existing after the cicatrix has been formed. In the latter case the muscular irritability is usually diminished, seldom normal, and never increased, just as in paralysis resulting from a disease of the cord. It will, therefore, be a cause of great mistakes in the diagnosis of paralysis, if we take, as often has been done, increased electro-muscular contractions as a proof of cerebral, and diminished muscular irritability as a proof of spinal lesion.

2. *Paralysis of the left Arm resulting from Apoplexy (?).*

Jane S., aged 35, No. 41, Carlisle Ward, St. Mary's Hospital, under the care of Dr. Alderson. From the rather confused remembrances of the patient, whose judgment is much impaired, it appears that she had an apoplectic attack fifteen months ago, in which she lost her consciousness, and the use of the left arm and leg. It seems that the paralysis of the lower extremity soon disappeared. At least, when I saw her the first time, July 20, she walked perfectly well, but several muscles of the left arm were paralysed, viz.: the deltoid muscle, the extensor of the forefinger, and all the muscles of the thumb. It is true that the mere elevation of the humerus could be effected by her, as in this movement the trapezius and the serratus anticus major concur with the deltoid muscle, but she was not able to raise the arm to a right angle with her body, and when she held her hand on the lower part of the spine, she could not raise it upwards in the direction of the spine, the last movement being only executed by the posterior fibres of the deltoid muscle. The forefinger was slightly bent, and could not be extended; the thumb was held against the forefinger, and could not execute any movement whatever.

To state that she was under the care of Dr. Alderson is to say that nothing had been spared in the treatment that may be efficient in the cure of paralysis; she had been galvanised too previously, with rather good success, but she was not able to do either needlework, or washing, or her business as cook. Dr. Alderson then asked me to apply Faradism to the paralysed muscles. When I first directed the electric current to the deltoid muscle, it did not move at all; the arm dropped as before, and did not rise. The extensor of the forefinger, and the muscles of the thumb did somewhat move under the influence of the current, although the volition had lost its power over them. Five *séances* restored the lost mobility to the deltoid muscle, but against what I had expected, the muscles of the forefinger and of the thumb, which seemed to be in a better condition than the deltoid, wanted a far longer electric excitation. Even when the patient left the hospital, in the middle of September, the muscles of the thumb had not quite recovered their normal strength, although the patient was again able to do needlework, washing, and to return to her business as cook.

3. *Paralysis of the Forearm resulting from a Concussion of the Ulnar Nerve.*

Frederick L., aged 35, being in all respects in perfect health, had the misfortune vehemently to strike his elbow against a wall, and after the great pain caused by the shock had a little subsided, was very dejected on finding that he could not move the forearm, and a feeling of great numbness existed in it. I saw him two days afterwards, and stated that not only the fourth and the little finger could not be moved at all—as I supposed a concussion of the ulnar nerve—but that the motion of the other muscles of the forearm was likewise impaired. I then applied a very intense current to the trunk of

the ulnar nerve, where it may be reached at the interval between the olecranon and the internal condyle; and had the pleasure to see that almost immediately after the excitors had been applied, the patient told me he did not feel any more numbness, and when I interrupted the application, the patient moved his arm perfectly well. It may be easily understood, that there could not have been a wound of the ulnar nerve, but only a concussion, which, however, was severe enough to impair the movements of the forearm and the hand. Paralyses resulting from real wounds of the nerves, according to my experience, are seldom successfully treated by electricity.

4. *Traumatic Paralysis of the Muscles of the Face.*

Sarah W., Beverley Ward, St. Mary's Hospital, under the care of Mr. Ure. The history of this case is somewhat obscure, as the patient is deaf of both ears, cannot well read, and her relatives have only told very little on her previous state. It seems, however, that her husband on several occasions bruised and mutilated her, and that once a severe blow on the head was inflicted. The patient is now deaf of both ears; the muscles of the left side are paralysed, and the prick of a pin is very obtusely felt on the skin of the same side. She also complains of headache, which is sometimes very severe. I applied Faradism to the left side of the face in order to restore the sensibility and the motion of the muscles. The sensation was improved after some *séances*, but the state of the muscles remained much the same. I was obliged to stop the treatment, because the headache returned vehemently, and antiphlogistic remedies were necessary.

5. *Spontaneous Paralysis of the Muscles on the back of Forearm.*

William W., out-patient of St. Mary's Hospital, was sent to me by Mr. Edwards. Without any premonitory symptoms having been observable, the patient, about a fortnight ago, awaking in the morning, found that he could not move his right arm; the hand drops, the lateral movements of it are also lost, and the sensibility of the skin on the back of the forearm is impaired. Neither lead-poisoning, nor concussion of the radial nerve, nor rheumatism, nor a disease of the brain, nor fatty degeneration of the muscles is present. No pain is complained of. All the extensor muscles excited by the lower branches of the radial nerve have lost their energy. The muscular irritability is not at all impaired, but the sensation produced by the electro-muscular contraction is almost none. When I directed the electric current upon the paralysed muscles of this patient, he felt that his muscles moved, but he felt not the least pain, even when I made use of the most rapid intermissions of a very intense current of induction, which produced in the healthy muscles of the left forearm an extremely disagreeable and almost tetanic sensation. I will not omit to mention that for acquiring an exact knowledge on the state of this sensation, it will not do to compare the sensibility in the paralysed extensors with that of the healthy flexors of the same forearm, as the muscles on the anterior side of the extremities always enjoy, in their usual state, a far higher degree of electric sensibility than those of the back. Therefore, in researches of this kind, only the corresponding muscles of the right and of the left side are to be compared.

As only the muscles animated by branches of the radial nerve were paralysed, and not one excited by the ulnar or median nerves, I supposed that it would be the best to electrify the nerve itself, where it can be reached on the outer side of the arm, at the junction of the two upper thirds with the lower third of the humerus. But the effect produced by electrifying the trunk of the nerve itself did not prove to me so satisfactory as that obtained by electrifying every paralysed muscle, perhaps because just the terminal branches of the radial nerve want the direct electric stimulus, and are excited together with the muscles in which they end. Eight applications restored the lost mobility in all the extensor muscles on the forearm; but some other *séances* were wanted to give them again that strength which was necessary for the patient, whose employment was of a most laborious kind.

6. *Paralysis resulting from Lead-poisoning.*

Samuel R——, painter, aged 28. He has had several attacks of lead-colic, from which he recovered under medical care. Six weeks before I saw him he had pain in the joints, cramps in the legs, but no general convulsions. He complains of obstinate constipation; the blue line on the gums is distinctly to be seen. All the extensor muscles of the left forearm as well as the deltoid are paralysed; therefore the left hand drops and cannot be extended; nor can the fingers. The back of the forearm appears concave by atrophy of the extensors. The raising of the arm is difficult, and the extending to a right angle with the body is impossible. The flexor muscles do not suffer at all. The right arm is weak, but not paralysed. The lower extremities are not impaired. On applying an intense current to the deltoid muscle, only a little tremulousness appears in its fibres, and in the extensors on the back of the forearm no contraction was to be effected. Faradism was applied about four weeks, every other day, when the patient had got much more strength in the muscles, the volume of which had been considerably increased. Unfortunately the patient would not give up his profession, and returned to his business as soon as he was able to do it, so that it is very likely the paralysis will return again.

Remarks.—The difference between the Cases 5 and 6 may be easily observed. But the symptoms of the effects of lead upon the system are not always so distinct as in the case of Samuel R——; indeed, sometimes the paralysis of the extensor muscles is the first symptom of the constitutional lead-disease. The diagnosis, however, between lead-palsy and spontaneous paralysis has not only a theoretical interest but a practical one, as in lead-palsy the application of electricity must be combined with a general treatment (croton oil, sulphur-baths, etc.) whilst spontaneous paralysis shortly disappears when treated by Faradism only. When a patient states that he never was exposed in his business to the injurious influences of lead, you cannot satisfactorily conclude that his paralysis is not caused by lead-poisoning. For lead very often is a long time administered to the system without the patients having the least knowledge of it, in adulterated food and drink. Nor is the paralysis of the extensor muscles always preceded by or simultaneous with symptoms which belong to the constitutional disease, and will, if observed, facilitate the diagnosis. Only the relation of the muscles to the electric excitation helps, in doubtful cases, to establish exactly the diagnosis, as muscular irritability is always either lost or certainly diminished in lead-palsy, whilst it is either normal or even increased in spontaneous paralysis. *Therefore when the muscles of a paralytic limb move well under the influence of the electric current, we may fairly conclude that there is no lead in the system.*

7. *Rheumatic Paralysis of the Interossei and Lumbricales.*

Elizabeth S——, aged 37, single, delicate-looking, has several times suffered much from rheumatism. About three months ago she began to feel a numbness and formication in the left hand, and perceived that the fingers had not their usual power. She has been forced to cease playing on the piano. When I saw her, I stated that the interosseous spaces were hollowed, the hand thin and cold, the circulation impaired; no veins are visible, even when the arm was hanging down by her side. The fingers can be removed but slightly from each other, and the extension of the two last phalanges is impossible. When the patient tries to extend them, the hand takes the form of a claw, viz., the last two phalanges are bent upon themselves and the first upon the metacarpus. There could be no doubt that it was paralysis and atrophy of the interossei and lumbricales. I therefore electrified these little muscles by means of solid metallic excitors covered with wet leather. After four weeks' treatment, the *séances* having been held every other day, a remarkable improvement has taken place. The patient was again able to play on the piano, small veins appeared under her skin, and the hand took no more the form of a claw when she tried to extend the last phalanges. There was, however, still a difference to be seen between the interosseous spaces of the left and right hand. As the patient was obliged to leave town, the treatment was stopped; it is very likely that if it had been continued some time longer, a complete reintegration of the muscles would have taken place.

I have often seen similar cases in their first degree. In young persons, chiefly young ladies, who used to play very well on the piano, suddenly playing becomes difficult and tiresome, and a feeling of numbness is perceived in the fingers. Then it is very easy to stop the progress of the disease by a few applications of Faradism.

8. *Case of Hysteric Paraplegia (?).*

Ann C., aged 28, married; No. 5, Carlisle Ward, under the care of Dr. Alderson. Three years ago she suffered from rheumatism. Fifteen months ago the first symptoms of her present illness appeared; her walking became difficult, and she did not feel the ground. She has not suffered from pain

or cramps in the legs. She has always been regular. She has been treated by cuppings, leeches, blisters, all along the spine; strychnia, calomel, bandages, and galvanism. When I first saw her (5th of July), the state of sensation was as follows:—On the head, neck, and the upper extremities, not the least anomaly; on the back anæsthesia, from the seventh cervical vetebra down to the os coccygis; a pin is not felt at all in the middle line of the spine; the further conducted to the outer side the better it is felt. On the lower extremities the pin is not felt at all. State of motion: the muscles of the lower extremities do not move under the influence of the electric current. Her walking is staggering. The functions of the rectum and of the bladder are normal.

I applied the current of the second order, which acts chiefly on the nerves of sensation, by means of metallic wires thrust in metallic cylinders to the skin of the back and of the lower extremities. While in the regular state of the nerves the electric current is instantly felt when the excitors are held to the skin, this patient did not feel it until it was applied from four to six seconds. Then, as I used a strong current, a sudden reflex movement of the whole body showed that now the sensation was brought to the centres of the nervous system. Such was the case as well on the back as on the lower extremities, with the only exception of the soles of the feet, where even the strongest current my apparatus can furnish was not felt at all. I continued Faradization, and had the pleasure to see that the state of sensation on the back was very much improved after six *séances*. *The interval between application and sensation of electricity diminished gradually.* In the seventh *séance* the current was almost immediately felt when applied. The sensory nerves of the lower extremities were more deeply impaired than those of the back. About fifty *séances* were held; in the beginning every other day, then almost every day. The sensation in the lower extremities was thereby very much improved, but in that part of the soles of the feet which is nearest to the toes, the sensation remained very numb. The muscles improved more rapidly under the influence of Faradism. In the third *séance* already they moved well, and became much strengthened by the further treatment. The patient walked much steadier than she did before when she left the Hospital, although she was far from being quite recovered.

It was not possible in this case exactly to determine the seat of the lesion. Perhaps the cord may have been affected in some way or other; but what a difference in the state of this patient and that of No. 9, which was undoubtedly a disease of the cord.

9. *Case of Atrophy of the Cord.*

William S., aged 43. Three years ago he had violent rheumatism. About twelve months since he was told by his friends that he walked irresolutely; he had not remarked it himself up to that time. He soon became worse, and was obliged to walk by the aid of a stick. When I told him to shut his eyes, he immediately began to stagger. He walks better in the street than in a small room. It is most difficult for him to go down stairs; he then suffers from violent vertigo; to go up stairs is much easier. He suffers from a feeling of numbness in the extremities, which began in the right hand and hip, and thence went down to the feet. The skin is dry, cold, and flaccid, but the prick of a pin is everywhere well felt. He is sometimes unaware, when sitting or lying, of the position of his limbs; only the sight gives him an exact knowledge of it. Pressure on the dorsal vertebræ is very painful, on the cervical ones no pain is felt. He complains also of a very disagreeable sensation of pressure in the epigastrium, and of obstinate costiveness. During the last few months he has been obliged to make great efforts during defæcation and micturition. Sometimes the bladder is emptied involuntarily, as the patient does not know whether the bladder is filled or not. The sexual potency is impaired.

Being sure that the patient would die, I nevertheless thought it worth while to try what Faradism could possibly do to alleviate his sufferings. I electrified the muscles of the right arm and both legs, whose irritability was impaired, every other day; and also the muscles of the abdomen, in order to restore the emission of the urine. In this I completely succeeded after four *séances*, and the effect of electrifying the muscles of the arm and the legs was, too, better than I had expected. The patient left for a German watering-place, and I have since not heard of him.

Manchester-street.

CASE OF POST-PARTUM HÆMORRHAGE, AND INERTIA OF THE UTERUS,

SUCCESSFULLY TREATED BY PRESSURE, OPIUM, AND STIMULANTS, WITH REMARKS ON THE TREATMENT OF FLOODING.

By JOHN ROWLISON PRETTY, M.D.

(Continued from page 628.)

It is worthy of remark, that, in the present instance, although applied under most unfavourable circumstances, and when the patient was apparently in a state of mortal syncope, that no hæmorrhage subsequently ensued, save the expulsion of a large clot, and which would arise from the contraction of the uterus only, and by its forcing out the blood in its venous sinuses. This case bears out my assertion, that hæmorrhage can be arrested without contraction of the uterus being immediately induced. "To assert that post-partum hæmorrhage can be temporarily arrested without contraction of the uterus, although a matter of the greatest importance, and on which life in many cases will depend, is so at variance with the prevailing rules of practice as to render it very difficult to induce prejudice and custom to be thrown aside. Many would not be contented with the hæmorrhage being arrested, unless they were aware that the uterus was contracted too. Not only is time lost in attempting to effect what cannot be sometimes accomplished, or if so, is only temporary; but the treatment too probably in many cases rather hastens the dissolution."—*Aids during Labour*, p. 196. Compression of the aorta has been adventured, but, as Dr. Murphy has remarked, "compressing" the cava, and bifurcation of the iliac veins, which seem to me of equal, if not of greater importance, because the veins are a great source of flooding; and if we can prevent the regurgitation of blood from these great trunks into the uterine veins, an important means of prevention is accomplished."—P. 321. This is the object of the compress, which by a powerful and uniform pressure prevents the refilling of the uterine veins, and in a different way accomplishes what contraction effects, and enables one to wait until it ensues, and which the pressure, too, is a means of inducing. When hæmorrhage exists with a contracted uterus, from laceration of the os uteri, and which sometimes proves fatal, then, it has been mentioned by me, (*Op. cit.* p. 143,) compression of the aorta is the means for arresting it. Dr. Ramsbotham speaks favourably of compressing the aorta in some cases of flooding, and when other means have failed to induce contraction; and he states that "while hæmorrhage is going on with any activity, I place no reliance on a bandage, however tight it may be drawn, or with whatever local compression its action may be aided. I cannot think any folds of linen applied over the uterine region, nor anything in the shape of a tourniquet, as has been recommended, can secure contraction in a manner at all to be compared to the grasping pressure of the hand. We have proved, indeed, that even the pressure of the hand will not always produce the desired effect."—P. 443. He mentions, "our last resource is the transfusion of blood into the system of the dying patient."—P. 446. Now were this immediately practicable—for it is not so, and the patient's life may depend upon prompt relief—what is there to prevent this blood passing from her as her own has done?"—*Aids during Labour*, p. 185. Statistics tell against it. The kind of tourniquet is not of more moment than for its portability. With it you have a general and a downward pressure. It is necessary that the webbing be not threaded, as when used in amputation, but that it proceed from the upper platform. The greater the length of the screw, the greater is the downward or backward pressure; still with it the centre of gravity is not so easily kept over the base of support, and it is liable to tilt over. This, however, can easily be prevented by having a small plate of brass, about an inch wide, and three inches long, so as not to project beyond the width of the bandage when rolled round it, rivetted across the lower platform, which effectually keeps it steady. The screw in Mr. Coxeter's improved tourniquet is about a third less in length, but has double rollers, so that it raises as much web. Then, too, the thickness of the compress makes an addition of another inch.

In using powerful pressure it is most important that it be uniform and diffused to render its application safe. When the uterus is dilated, it would, in this relaxed state, easily escape from a limited pressure that could only be applied to

part of it, which might be unduly pressed against the vertebral column. This is avoided by the compress, with which you have too powerful lateral pressure to prevent the uterus escaping from it into either iliac fossa, as well as powerful pressure on or above the fundus, according to the size of the uterus. It is objected that the compress would not be at hand when required. I would beg to suggest its being always applied after every confinement, as it facilitates the expulsion of the placenta, and promotes the contraction of the uterus. The tourniquet may be brought into action or not, according to circumstances. It can be used either over the bandage or without it. Dr. Rigby remarks, "We are never perfectly secure against hæmorrhage coming on during the first few hours after delivery, even when everything has turned out as favourably as possible," p. 218. Women run thus a most serious risk, which it is well for them that they are not aware of. Mental emotion might induce relaxation, or it might and does occur from other causes; the doctor may live miles off, as in the country—and before he could arrive the hæmorrhage may have proved fatal. Such cases do occur. Whereas, with the compress, it could be easily arrested, either by the nurse or patient turning the screw to the utmost. In the case now recorded by me, when reaction occurred at 6 a.m., there was no return of the hæmorrhage, although the uterus had not contracted, and which otherwise must have been the case; nor for several hours afterwards, when the patient was fluctuating continually. I have no doubt that had it been applied in Dr. Ramsbotham's case no hæmorrhage would have occurred. A very good case of the success of pressure with the tourniquet, and where ergot had thoroughly failed, was published by Mr. R. M. Nunn, of Wexford, Ireland, in the *Med. Times and Gaz.*, Nov. 3, 1855, p. 455. The tourniquet and compress are thoroughly portable, and I cannot imagine any accoucheur who would object to them on this account, for were he to suit his own convenience before the welfare of his patient, he would be a discredit to his Profession. He would, however, best suit his convenience by using them, as he could leave his patient earlier, and with greater confidence.

It will be observed that I gave immediately a drachm of laudanum on seeing this patient. I believe without it the patient's syncope would have been mortal. Its action as a stimulant was most decided, and for the time efficient; and with it, other stimulants, and pressure the uterus soon was aroused. This excitement of it may be attributed to any of these. I believe that they all aided, but this inquiry is not my object. Did any of them paralyse the uterus? I would reply, most certainly not. Yet opium in these cases is a *quæstio vexata* that throws discredit on the Profession. Only so recently as December 3rd, 1855, a trial was published in the *Times*, Black v. Watkinson, to recover damages from the defendant for imputing mal-practice to the plaintiff in a case of flooding. Dr. Murphy advocated the use of opium, and gave it as his opinion that opium ought to have been given after delivery, at the same time defending the treatment of the plaintiff.

Dr. Waller stated that he should not have administered opium; that it was likely to paralyse the womb and stop contraction, and to affect the stomach, and it was safer to do without it. The plaintiff obtained a verdict.

I have fully entered into this subject elsewhere—"Aids during Labour," pp. 174—184. Authorities can be quoted on either side. Dr. Ramsbotham, Dr. Murphy, Dr. Burns, Pereira, etc.

Dr. Ramsbotham after remarking on the paralysing effect of opium on the uterus states, "I have often seen at the commencement of labour uterine action suspended by what would be considered a large dose of opium; and if the same quantity will take away action at the beginning of the process is it reasonable to suppose it will excite it at the termination?" p. 438. I have replied that "there is reason for believing that at first the nerves are more immediately connected with the powers of parturition, for the pains then are chiefly felt in the back; consequently, what will quiet the nervous system will sometimes for a time lull the pains."—*Op. cit.* p. 179. It is a known physiological fact, that the fibres of involuntary muscles "retain their irritability longer than those of the muscles supplied by the cerebro-spinal system of nerves;" and Dr. Carpenter further states, "the contractions of the uterus itself are independent of all connexion with the nervous system," p. 153; and Dr. Tyler Smith has shown also that the uterus "is the *ultima moriens* of the ganglionic system."—*London Med. Journal*, Dec. 1849, p. 1109.

In true inertia proving fatal the uterus loses its irritability before the heart, it then cannot be excited to contract, and no longer—as when death occurs from other causes—"is the *ultima moriens* of the ganglionic system." As I have before stated, "it is not argued that a full dose of opium interferes with the action of the spinal and ganglionic nerves; the former must be destroyed before the latter, and the latter before the muscular fibres of the uterus lose their contractility."—*Op. cit.* p. 180. The muscles of organic life "appear to be, in the living body, much seldomer called into action through the nerves, than they are by stimuli applied directly to themselves."—*Carpenter*, p. 302. How then is this asserted paralysing effect of opium on the uterus to be proved or explained? It is given as our most powerful and efficient stimulus. Burns says, that opiates "are among the safest and best cordials we can employ; and must in every instance be exhibited;" and Dr. Ramsbotham remarks that, "opium certainly acts as a cordial, healing the irritability of the patient, and producing a sleep;" the best preventive that we can possibly have to the return of the hæmorrhage. It does "what sleep accomplishes; it restores tone generally, not only to the heart but also to the blood vessels, enabling them to contract on their diminished contents," (*Op. cit.* p. 183,) and is an important means of controlling the danger of reaction—the return of the hæmorrhage. After the expulsion of the large clot depression returned, and 20 minims more of tinct. opii were given. Again this was followed by uterine pain, and which was sufficietly severe as to make the patient complain and desire the compress to be slackened. If any error was committed I believe that too little instead of too much tinct. opii was administered. However, after producing an effect I judged it safer to give ordinary stimulants. In administering them, as I have before stated, "effect and not quantity must be the rule."—*Op. cit.* p. 174. The extraordinarily long-continued depression showed the severity of the case, and which her previous state of constitution accounted for. As late as the twentieth day after delivery her pulse was small, weak, and 108 in the minute.

Altogether 6 ozs. of brandy, rather more than otherwise; 20 ozs. of gin; sp. am. comp. ℥ss. and tinct. opii ♏lxxx. were given. At one p.m. on that day she was free from headache, and she subsequently suffered no inconvenience from the stimulants—as thirst or feverishness.

Had chloroform been administered in this case, all the evils that occurred might and probably would have been attributed to it, for the symptoms were similar to those produced by it. The feeble state of the child, the flooding, the subsequent long-continued depression and faintness, and the delirium would have been supposed to have been caused by it. The delirium closely resembled that produced by chloroform in its second stage. There was the amorous talk and the peculiar movement, which without the compress I believe would have caused further hæmorrhage. Upwards of seven years since I had the advantage of an esteemed friend's assistance with a forceps case. The patient was the wife of a baker, and had married when she was 37 years of age. Chloroform was administered, and during part of the time that traction was being used, she struggled, supposing her husband to be with her, and begged him to desist. In this case, as with chloroform, had perhaps more tinct. opii been given it might have been avoided; not that that should be a consideration, for with such a medicine it is well to steer clear of a poisonous dose. Burns mentions from 50 to 60 drops of laudanum at first, and small doses of one grain of opium subsequently, if necessary. Dr. Murphy, a drachm in a wineglass of brandy, and the laudanum may be repeated in more moderate doses until the pulse becomes steady.

The soft, doughy feel of the uterus is characteristic of the state of inertia that existed, and it is somewhat remarkable that the uterus at half-past ten, after refreshing sleep, should have been felt unusually small, firm and well contracted, in fact it was then fully a third less than on the following day. This is not in accordance with Dr. Ramsbotham's opinion of opium, viz., that, "it takes off both muscular and uterine action; it disables the uterus, therefore, from contracting, even were it so disposed."—P. 438.

It is most desirable that the treatment of flooding should be better agreed upon. If opium is to remain a disputed point it cannot be difficult to test the efficiency of powerful,

steady, and continued pressure by mechanical means. Any opinion from however high an authority—as Dr. Ramsbotham's—is of little value without its having proved a failure in practice. Dr. Churchill's statistics of cases proving immediately fatal in the practices of some of our first accoucheurs are as high as 1 in 12 (2nd ed. p. 398), and Mr. Robertson remarks, "more women die of hæmorrhage succeeding labour than probably from any single accident in childbed whatever," p. 344. Such statements as these are more than ample to induce accoucheurs to look around for further aid, and to try one that relieves the accoucheur of great fatigue, and causes no uneasiness to his patient.

31, Bayham Terrace, Camden Town,
Dec. 1856.

THE LONDON

PRACTICE OF MEDICINE AND SURGERY.

THE LONDON HOSPITAL.

INTESTINAL OBSTRUCTION FROM SCIRRHOUS MASS IN THE PELVIS—COLON OPENED IN THE GROIN—RECOVERY.

(Under the care of Mr. ADAMS.)

We have given the particulars of the following case in unusual detail because great interest is attached both to the operation itself and to the means by which subsequent complications were met. It is a case in which the majority of Surgeons would probably have preferred to open the colon in the loin (Amussat's method), and thus avoid wounding the peritonæum. Mr. Adams stated that he had chosen the anterior operation because in cases in which the colon was not distended he had several times known great difficulty encountered in finding it. He thought that by opening the abdominal parietes in the groin a much better opportunity for exploration was obtained, and that, therefore, in cases where, as in the present, the cause of obstruction was doubtful, it ought to be adopted. If the loin were evidently distended there could then be no doubt but that Amussat's operation would be easy of performance and much preferable, but in others the question was different. The case is from the notes taken by Mr. Forbes, Mr. Adams' House Surgeon.

Ann Higgs, aged 35 years, needlewoman, was admitted under Dr. Little, on the 17th September, on account of stoppage of the bowels.

History before Admission.—She states that about twelve months ago, six months after giving birth to a dead infant, a "dreadful pain" seized her suddenly one evening in the left groin, just over the site of the sigmoid flexure of the colon. After this, at intervals of about a fortnight, similar pains attacked her. They generally came on late at night, when sitting over her needle-work, and they would be often succeeded by vomiting and purging, and if so, there was immediate relief. They never attacked her before the birth of her last child. Ten weeks prior to her admission she found these attacks come on more frequently, being also more violent in character, and soon they began to be attended with costiveness, from which before she had been quite free. By degrees the constipation became worse; still, by violent straining, she was enabled to overcome this evil. The stools were now always very hard, and day by day she fancied they became smaller in calibre. The difficulty of evacuation became every day worse: there was no settled pain, only this periodical one before mentioned, and no blood was passed in the motions. To-day fortnight, 9th September, she was unable to pass any motion, and becoming rather alarmed, she on Sunday ult. took castor-oil, but this produced no effect. Yet there was no fixed pain, though the occasional fits became more intense and more frequent. About an hour after taking the oil she was attacked by severe vomiting, accompanied by great pain over all the region of the abdomen, which had not ceased when admitted into the Hospital. Respecting hereditary predisposition, she states, both her mother and grandmother died at an early age from debilty and pain attended by a discharge from the vagina, and also that her mother was much emaciated, but does not remember concerning her grandparent.

In the evening of the day of her admission, a 2 pt. enema of soap and water was thrown into the rectum, followed, however, by no satisfactory results, and warm fomentations were applied to the abdomen.

18th. The sickness continuing, she was ordered ice, and a powder containing calomel and opium. Dr. Little now desired Mr. Adams to examine the case. The abdomen was found very much distended and tympanitic. A good deal of pain was complained of all over the cavity, but more especially over the left iliac region. The woman's countenance bore testimony to her having suffered great pain: she was thin, the cheeks were wan, the pulse very weak, and her voice low and feeble. Mr. Adams introduced an elastic tube about six inches into the rectum; but when the attempt was made to pass it further, it coiled back upon itself. During the manipulation a quantity of gas escaped through the tube. A quantity of gruel was then thrown up, but when discharged it was attended by no fæces.

19th. Mr. Luke and Mr. Adams to-day held a consultation on the case, and, after ineffectual attempts on Mr. Luke's part to introduce the tube further than it had previously been, an operation was resolved on, as the only, and apparently but slight, chance of saving life. She was carried to the theatre, which had been previously heated to the proper temperature, was placed on the usual operating table, her legs hanging over the end, and the body well raised. Chloroform having been administered, Mr. Adams commenced the operation, which was after the method recommended by Littre.

A perpendicular incision was made in the left iliac region, to the length of about three inches, and this was gradually carried through the parietes down to the peritonæum; the serous membrane was then pinched up, and a small nick made in it, when a quantity of both gas and fluid escaped, as (it seemed) from between the parietal and visceral layers, which, even to the eye, sensibly diminished the size of the circumference of the abdomen. The left forefinger was now inserted under the peritonæum, and with a probe-pointed bistoury laid on the finger, the serous membrane was incised to the same extent as the abdominal walls had previously been.

The intestines were now completely pushed aside, while an exploration for the seat of stricture was instituted by the finger; it seemed to be at the upper end of the rectum, but below the sigmoid flexure; however, neither by Mr. Luke nor by Mr. Adams could its exact nature be determined. The sigmoid flexure of the colon was now brought to the edge of the wound, and a needle was passed into the intestine to prevent it from retracting when the incision was made into the gut; it was then punctured, and a very great quantity of fetid gas escaped, followed, however, but by a small quantity of fæces. The intestine was then stitched to the side of the wound, and the patient removed to the ward; her knees were carefully supported over a pillow; the abdomen was fomented by warm water, and she was put on milk diet, beef-tea, eight ounces of wine, and four ounces of brandy.

In the afternoon she was very sick, but towards evening this passed off, and she felt much better; being very thirsty soda-water was administered. Pulse 100, and hard; tongue dry, and coated with a brown fur. No motion passed from the rectum.

20th.—She felt much easier this morning; a large quantity of dark-coloured fæces passed through the artificial opening. The abdomen was much less distended; pulse 94; tongue more moist, but still coated. Ordered—Tinct. opii, mxxx., h.

21st.—Passed a very comfortable night; slept well; motions continue to pass through the false anus; complains of dyspnœa; pulse 102; tongue more dry again to-day, and coated. Ordered fish for dinner. In the evening a good deal of flatus passed from rectum, and caused a considerable degree of pain during its transit. Pulse 100. Rep. tinct. opii.

22nd.—Has slept but very indifferently during the night, a quantity of hardened fæces having passed from the rectum, and caused considerable pain; these motions continued to pass at intervals during the day; the motions passed from the artificial opening are more of their natural colour. Pulse 90. Rep. tinct. opii.

23rd.—Has slept well. Motions have passed to-day from both apertures; pulse 90, and softer; tongue more moist, and less coated. In the afternoon sickness came on, and made her feel again very unwell.

24th.—Passed another restless night; pulse 86; complains of a rumbling pain when the motions are passing along the

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intestines, and says she can plainly trace their course. The sutures were to-day removed from the wound, which looks healthy.

25th.—Passed a comfortable night; the abdomen is almost reduced to its natural size; there is neither pain nor tenderness on pressure. Pulse 90, and soft.

26th.—Complains of severe pains all over the abdomen; has had no motion pass from either orifice for two days; the artificial one seems to be filled with very hard fæces, some of which were scooped out with a probe. Pulse 110. Ol. ricini ʒij. was ordered.

30th.—Complains of great pain in the loins, and under the sacrum. As the bowels have not been opened for some days, the injection was ordered to be repeated, but it returned without bringing with it any fæcal matter. To take brandy, five ounces.

October 1st.—She now complains of the pain in the region of the sacrum having taken on a throbbing character, of intense degree. It not only prevents her from sleeping at night, but the pain has caused the surface of the body to be covered with perspiration. The pulse has risen to 120. The tongue is very dry and coated. Rep. tinct. opii.

2nd.—The throbbing pain still continues, and caused Mr. Adams to-day to institute an examination, when he found a fluctuating tumour of some size situated between the rectum and vagina, which he diagnosed to be an abscess. A grooved needle was introduced, but by it the character was not determined. Rep. tinct. opii morn. and eve.

3rd.—Mr. Luke to-day examined the tumour, but could not come to the same conclusion as Mr. Adams. It was, however, agreed that a lancet concealed in a canula should be introduced, which having been done, a considerable quantity of very fetid pus followed, and she expressed herself as being very much relieved. Pulse still 110. Rep. tinct. opii.

4th.—Passed a very comfortable night; slept well; the pain very much mitigated. A great quantity of hardened fæces passed through the false anus, and a considerable amount of pus from the rectum. The pulse has sunk to 84. There is some pain over the abdomen, but this is relieved, rather than otherwise, by pressure. Rep. tinct opii.

5th.—Complains of pain every time the fæces pass down. Pulse weak, but of natural quickness. A quantity of fæces were scooped from the wound. Her general health seems better. Ordered fish for dinner.

6th.—The pain is less; she herself says she is better. Very little fæces offered themselves at the wound to be scooped away, and none have passed from the rectum. Her appetite is not quite so good.

7th.—Pain more violent to-day; a little hard fæces scooped away from the rectum. The pulse is rather weaker, and a little hectic shows itself.

8th.—Again feels better to-day. The matter from abscess seems to be tinged with fæcal matter, but it is difficult to decide. The fæces from artificial anus have still to be scooped away; the wound, however, looks healthy, and has cicatrized down to the point to which the intestine was stitched.

9th.—Feels about the same. The fæcal matter was removed from the false anus to-day by the natural movements of the intestine. There is still discharge from the rectal abscess.

11th, 12th.—Sleeps pretty well when opium is given, general health better; pulse more full, and still 80. Fæces from false anus cause much pain in passing.

13th.—Feels much better; pulse stronger; tongue moist, and but little coated; bowels about same. Ordered ʒx. wine.

21st.—Great pain has again set in to-day; she cannot endure pressure to be made on the abdomen; a great quantity of fæces passed in the evening, which gave great relief; she was also very sick, and her pulse was increased in frequency.

22nd.—Better again to-day, and in less pain; tongue moist; pulse slower; the bowels not opened; medicine ordered to allay sickness, which has given great relief.

23d to 26th.—Still gradually improving; the motions passed from rectum on the 23d and 25th.

November 1st.—No motion has now passed per rectum since the 25th, but the fæcal discharge from the false anus has been copious; an enema of gruel was ordered this morning, but when it was discharged it only brought away with it some matter from the abscess.

3rd.—As no motions had passed per rectum for some time, Mr. Adams examined the rectum by his finger, to endeavour to ascertain the reason, and discovered a hard lump at the posterior part of the rectum, which he takes to be schirrous.

Present State.—December 16.—The poor woman is now in somewhat improved health, and suffers very little inconvenience from her artificial anus. The opening is almost close to the anterior spine of the ilium. No fæces have passed per anum for some weeks. On examination per anum a large, hard, and, in all probability, malignant, mass may be felt pressing on the rectum from behind. Whether it commenced in the cellular tissue of the part or in the lymphatic glands is doubtful. She will probably live for a few months longer, and has been by the operation wholly relieved from distress and danger from intestinal obstruction

POPLAR HOSPITAL.

FRACTURED SKULL, WITH DEPRESSION—NO OPERATION—RECOVERY.

(Under the care of Dr. BAIN.)

The following case is reported by Mr. Brownfield, House Surgeon.

William Page, 15 years of age, a shipwright's apprentice, having fallen down the hold of a ship, about seventeen feet, was brought to the Hospital, and admitted under the care of Dr. Bain.

September 14, 11 a.m.—He is profoundly insensible; skin cold; pulse 76, small and weak; respiration rather slower than natural, but not embarrassed. Pupils act under the stimulus of light; there is hæmorrhage from right ear. Fully two square inches of the right parietal bone are depressed, the edges of which are not very clearly defined, but it is half an inch in depth in the centre. The accident occurred twenty minutes ago.

Treatment.—Half the head shaved. Lot. plumbi., caput applicand.; cal. jalap. gr. xv. stat. sumend.: mist. salin.; ʒi. 6tis horis.

7 p.m.—Very restless, calling out, "Mother, mother, don't hurt me, get off me."

15th.—Very violent, and requires to be held down occasionally to prevent him hurting himself. The bladder being full, I introduced a catheter, and when nearly in the bladder the urine rushed out very forcibly, after which he became more quiet. Fæces pass involuntarily; pulse 80, small; skin hot and dry; very little tumefaction of scalp; respiration good.

10 p.m.—Drew off urine, much the same.

16th.—Hæmorrhage from ear has stopped during the night; left arm paralysed. He cannot open the left eye, and it is very much turned inwards. Pulse 80, no fuller; tongue coated with a thick dry white fur. Urine drawn off; smells strongly.

10 p.m.—Appears more sensible, having recognised his mother. Skin about usual temperature. Passed his urine, and retains his fæces.

17th.—Pulse 70, slow and weak; very sleepy; slight pressure over the depressed bone appears to give him pain. Hyd. chloridi, gr. i. bis die.

10 p.m.—Very violent, roaring and screaming out, and trying to get away, but restrained by nurses, etc.

18th.—Has been very restless during the night, and is now sleeping. Pulse 70. Beef-tea, Oj.

10 p.m.—Quiet; skin quite cool, and the temperature of body much diminished; he complains for the first time of pain in head, and cramp in left arm and hand. Pulse 68; bowels opened, tongue clearer. Omit lotion.

19th.—Answers questions this morning, and then relapses into his sleepy condition.

20th.—Improved; tumefaction of scalp entirely subsided; can open left eye, which is quite straight again; more power in left arm; pulse 80; bowels opened. Omit hyd. chlorid.

October 3.—Has continued to progress favourably; says he is quite free from pain, and quite well; all his senses appear perfect, but cannot press strongly with left hand. Bowels opened every day; pulse 72.

15th.—Progressing favourably; his pulse, which is generally 72, rises to 100 upon very slight exertion or excitement on his part; tenderness of scalp has entirely subsided; the depressed portion of bone is firm, and does not appear so

deep, and is evidently being pushed up more to its normal position: allowed to get up to-day.

27th.—Having steadily progressed to the present time, and being anxious to go home, Dr. Bain discharged him to-day.

December.—Has been to work. Bone is still much depressed. He has continued free from pain, and gained more power in his left arm, being, in fact, quite well.

HOSPITAL NOTES.

MANIPULAR REDUCTION OF DISLOCATIONS OF THE FEMUR.

A fortnight ago no fewer than three cases of dislcoations of the femur were admitted during one week into the London Hospital. Pulleys were not used in any one, nor was it necessary to send for the Surgeon under whose charge they nominally came. In the first Mr. Forbes, the House-Surgeon on duty, informs us that he succeeded easily by simple extension with the hand; and in the other two the plan by manipular rotation, to which we have so often adverted, was had recourse to. In both an immediate and easy reduction was effected. All the cases were recent. The testimony concerning the superior advantages of this over the old and more violent methods is now generally acknowledged. Not long ago a lengthy report of numerous and most successful trials of it appeared in one of the American journals.

SLITTING UP THE LACHRYMAL CANALS.

The practice of slitting up the lachrymal canals and their orifices, originally introduced by Mr. Bowman, for the treatment of certain cases of epiphora, still continues to be extensively employed at the Moorfields Ophthalmic Hospital. It is adapted to all cases in which either the punctum is narrowed or displaced outwards, and these constitute a very numerous class. In almost all cases of long-continued tinea tarsi, in which, by degrees, the thickening of the lower lid has everted its edge, this simple procedure relieves the patient of his most troublesome symptom. Mr. Critchett has recently had made some grooved steel probes for this operation, which materially facilitate its performance. The silver ones formerly employed being necessarily very small, were unsteady as guides to the point of the knife. The steel ones, on the contrary, give it good support, and their groove is of great advantage in securing that it shall glide easily in the right direction. To secure smoothness of surface and prevent rusting the steel probes are gilt. A Beer's knife is the best, and with these instruments the operation is one of extreme ease.

EXCISION OF CANCER OF THE LIP, AND RECURRENCE ON THE OPPOSITE SIDE.

Mr. Curling has at present under care in the London Hospital, an old man, from whom about six years ago he excised an epithelial cancer of the lip. The ulcer existed at the left extremity of the lower lip, and there was no disease of the glands. It was freely removed, and quickly healed soundly. Five years afterwards the man came under the care of Mr. Luke, for a cancer of the opposite extremity of the same lip. The scar of the former operation was quite sound, and there was a large portion of healthy structures intervening between it and the recurred growth. Mr. Luke excised the diseased portion—good healing followed. The man is now under Mr. Curling's care, for an open cancerous ulcer, resulting from disease of the glands under the jaw of the side last affected. We have in this case an interesting proof of the existence of a constitutional predisposition in epithelial cancer, and also of the influence of irritation in localising the outbreak. The man is a smoker, and formerly smoked on the side where the first cancer appeared; after the operation he changed sides, and in the course of years the same irritation produced a cancer in the new site.

CHLORATE OF POTASH IN PTYALISM.

The powers of chlorate of potash in arresting ptyalism, although now usually had recourse to by most of our hospital physicians, are still not so widely known as they deserve to be. Given in doses of a scruple every four hours to an adult, and in proportionate ones to younger patients, this salt will, in the course of a few days, mitigate in the most marked manner all the distressing symptoms of this affection. The gums acquire firmness, and the flow of saliva diminishes. Although this point must not be regarded as settled, yet we know of no reason for believing that it exercises any influence in preventing the good effects of the mercurial upon the system generally. It probably merely cures the inflammation of the mouth. With regard to its potency in the latter direction, the results of careful experiments were recorded a few years ago, almost coincidently, by English, French, and Swiss observers, all uniting in deeming that its efficacy was beyond the reach of the slightest doubt. In ordinary cases, a week is sufficient for a complete cure; and its benefits are usually perceptible in the course of twenty-four hours.

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Medical Times & Gazette.

SATURDAY, DECEMBER 26.

PROSTITUTION.

On a former occasion we called the attention of our Professional brethren to the subject of Prostitution, and we then showed by reasons in our view unanswerable that the evils resulting from it directly and indirectly are of a nature to demand imperatively the consideration of the philanthropist and the legislator; and that the ignoring of the fact, the *laissez-faire* of the vice in its vicious circle, was a method of dealing with it such as could only be, and in fact at this moment was, productive of most serious injury to the moral and physical condition of society at large.

We referred to the well known fact that, heretofore, the decent world—the world of religion and morality—had turned a deaf ear to all arguments in favour of any meddling with the vice and its consequences, and had restrained by its pious arguments the warm impulses of benevolent persons, who would have been otherwise well inclined to act the good Samaritan's part towards its victims. The vice, our high-toned preachers have told us, is a foul thing, which can only soil the hands of him who touches it. We added, that this passive silence could be no longer permitted. Ignorance of his true obligations, and of the nature of the moral and physical miseries engendered by the vice, might have once been a man's excuse for inaction here, but it can be pleaded as such no longer. While so much energy is being displayed in so many directions around us, and in such varied ways, all for the purpose of lessening the social evils which torment society, and of elevating the general condition of our race, it becomes impossible that this evil can be permitted to run its course unquestioned. The fearful magnitude of the vice cannot escape appreciation even of the most unwilling eye, displaying its ill proportions at every turn in the paths where men meet their fellows; neither is it possible for an honest man to conceal from himself the widely scattered evils, sown broadcast around him, which are the necessary consequences flowing from the vicious pestilence, involving alike in their

tainting grasp the innocent and the guilty—infecting soul and body.

In all high social efforts in the cause of humanity, our Profession has ever been in the van; it has always marched at the head of civilization. In the attempt to reduce this citadel of wickedness, it still finds its fitting place as Leader and Director. As one side of the vice—the *physical* evils which are its associates—naturally comes altogether under our consideration, no class of men, consequently, can more readily take cognizance of its *moral* evils. We therefore make an appeal to our Medical brethren; we call upon them to take the initiative in this work of regeneration, which is to be, and, sooner or later, must be done. Their addresses on the subject to the good sense and kindly nature of our fellow-countrymen will assuredly not be made in vain. The springs of charity will gush abundantly forth, when the prejudice and the ignorance of the world concerning the true facts of the case are once removed. The prejudice is the offspring of the ignorance, and to tear away the mist of ignorance falls not unnaturally to our part.

We already see the satisfied smile curling on the lips of the Red Tapist, and are prepared for the answer of Routine. "This evil, Prostitution," we shall be told, "is a fact almost coeval with creation; the earliest records of the world tell of its existence; it has existed at all times, in all ages, and in all countries; and therefore it is a necessary evil attendant upon human society, and must be submitted to as such; it has ever existed, and will continue so to do as long as human nature is corrupt and human passions rage inordinately: your efforts are kind and generous, but they will avail you nothing to your object; they are founded on visionary ideas of society."

Our answer to this is prompt and positive. The rude handling of the world has wakened us out of dreaming in the realms of Utopia; the days when *chateaux en Espagne* torment the hopeful fancy of youth have long passed away. We know well enough the folly of attempting the impossible; the ridicule to which all who attempt it subject themselves, and the injury which they inflict upon the cause they would promote. We therefore ask our professional brethren to attempt and to accomplish that only which is direct and practical in this business, and which, when done, will manifestly tend to assuage and lessen human sufferings. Surely men of our Profession are the last in the world who need to be told, that when they cannot do all the good they would, their duty is to do the good they can. The evil may be too deeply seated to admit of extirpation—the cancerous disease may be constitutional—still the Physician has a manifest duty to perform; he diminishes the attendant suffering, he lessens the anguish, and controls, as far as may be, the spread of the disease. This is his daily work while busied with the sufferings of the body. Why should he be less energetic or less logical when dealing with this moral and physical disorder of the world?

This, then, is the not difficult task to which we would ask our brethren to give a hand. Let them teach the unknowing rulers of society what the thing Prostitution really is—let them explain its causes and show its consequences. Let them demonstrate the undoubted fact, that the chiefest of those causes which drive woman to the act are to be placed to the account of a neglectful society itself; that the woman is rather an unfortunate victim of the circumstances which surround her than a guilty sinner. By thus teaching society its duties they cut at the very root of the disorder. Let them, again, remove the irrational sentiment, so widely prevalent in the world, which stigmatises the indigent subject of venereal disease as being one who has no claim to partake in the charities of the country. What greater folly than to refuse aid to the diseased female, permitting her to wander forth, and spread infection all around, perhaps even to her husband! By such folly you may punish the innocent, but you can never reform the guilty. It was only a few months ago that the Physician of one of our country hospitals was seriously reprobated by the Noble and Reverend Governors of the Institution for having admitted a woman thus diseased into it. She was summarily ejected. Such blind ignorance we ask our Profession to cure. We need hardly say that the matter must be considered with all deference to the feelings of respectable women patients in our hospitals. No sensible man would think of forcing upon them the company of prostitutes. But it is not difficult to set apart a ward specially for such cases. It might also be considered that very strict inquiry should be made into the pecuniary circumstances of all venereal patients, and that only the absolutely destitute should receive gratuitous Medical assistance. It would undoubtedly appear unjust to extend the same amount of charitable assistance to the man who squanders his earnings in low debauchery, as to the industrious mechanic whose sickness prevents him from fully supporting his wife and children. This, however, leads to the wide subject of self-supporting hospitals, which we must discuss on a future occasion.

To return: there are those again who palliate the vice in man,—insist that, inasmuch as the passion is implanted in him, its gratification is natural and permissible. By whom can the untruthfulness of this assertion be more fitly explained than by the Physician, who understands the physiology of our nature? He will tell the bad reasoner that the illicit gratification of the passion, so far from assuaging, only whets the appetite for further sin, even to the injury of the constitution of the individual; and is it to stand for nothing with him, that, while indulging his own purposes, he is adding to the awful sum of misery undoubtedly suffered by those whom he chooses for the objects of his lust? Let the Physician stigmatise deservedly the brutal selfishness and gross injustice of the world, that degrades and crushes to the earth with unswerving purpose the fallen woman, and which yet smiles complacently on the man who ruined her.

Such is the direction in which we would ask our brethren to turn their labours for the end proposed. We can only hint now at a few items, as specimens of the work there is to do. What we have said shows manifestly, that every one may readily exert his influence, great or small, most beneficially in the work. Who would not, for the wretched woman's sake, be glad to see some bright gleam reach into those

> "Sights of woe,
> Regions of sorrow, doubtful shades, where peace
> And rest can never dwell?"

THE CONTROVERSY RESPECTING THE DETECTION OF NARCOTIC POISON.

The fact that an "analytical chemist," on whose oath persons are liable to be convicted and executed, has recently sworn to the presence of a ponderable quantity of morphia in a liquid in which he was afterwards obliged to admit that there was none, is of too great importance to the safety of the public, and to the reputation of physicians who prescribe, and druggists who dispense medicines, to be passed over in silence.

The facts as they transpire in the letters of Mr. Davey and Dr. Letheby are these:—

I. A woman, æt. 21, died suddenly in the arms of her husband, on the 24th July, 1857. An inquest was held: there was no disease to account for death, and an analysis of the stomach and contents was directed to be made, and for this purpose the stomach was sent to Dr. Letheby.—*Med. Times and Gazette*, Aug. 29, p. 280.

II. According to Dr. Letheby, deceased had procured a bottle of medicine from a druggist at Romford, on the day before her death. "Early on the morning of her death deceased took (as Dr. L. understood) something from a bottle in the room where she slept, and soon afterwards her husband found her breathing very heavily. This excited his alarm, and in endeavouring to raise her from the bed she quietly expired." —*Med. Times and Gazette*, Nov. 28, p. 560.

III. Dr. Letheby states that the stomach contained about half a table-spoonful of a thickish fluid of a deep red colour. This would correspond to three drachms, or less. He says. "This was *carefully* tested for opium and other poisons. It furnished *a trace* of what I thought was morphia." "The quantity might be about a *tenth part* of a grain, and this would represent about one grain of opium. My opinion at that time certainly was, that deceased *had died from the effects of morphia*."—*Med. Times and Gazette*, Nov. 28, p. 560. The reasons assigned for this opinion are—1. She was deeply comatose before she died. 2. There was no evidence of disease in her body; and 3. There was a *something* in her stomach which gave the *reaction* of *morphia*.

IV. Mr. Davey's version of Dr. Letheby's deposition at the adjourned inquest is much to the same effect. But here we arrive at a difference between these gentlemen. Dr. Letheby having in the meantime examined a mixture supplied to the deceased by the Romford druggist, changed his opinion about the presence of morphia in the contents of the stomach, and ascribed the reactions of morphia to the presence of some "resinous body," etc., in the stomach.—*Med. Times and Gazette*, Aug. 28, p. 230.

V. As extract of taraxacum with sulphuric ether had been prescribed for the deceased, and dispensed by the Romford druggist, and Dr. Letheby had described the mixture which he analysed as a "dark ethereal mixture" (p. 230), Mr. Davey arrived at the conclusion that taraxacum must have given rise to the fallacy. Dr. Letheby denies this, and affirms that "taraxacum has had nothing to do with this business." In his letter published in our last number (p. 642), he says that *something* gave the reactions for morphia; but, "in order to discover what it was, it would be necessary to make a complete examination of everything in the druggist's shop," etc.

It has been shown by the experiments of Dr. Taylor and Mr. Scanlan, and it is admitted by Dr. Letheby, that taraxacum does *not* give the reactions for morphia nor opium, and cannot be mistaken for the alkaloid or the drug. Mr. Davey and Dr. Letheby agree in their statements to the effect: —

I. That in so small a quantity as from *two to three fluid drachms* of liquid from the contents of a stomach submitted to "careful" chemical analysis, he (Dr. Letheby) detected a quantity of morphia equal to *one-tenth of a grain*, equivalent to one grain of opium.

II. That Dr. Letheby considers the tenth of a grain of morphia (and consequently one grain of opium) "*a trace*." —See our last Number, p. 642.

III. That at the adjourned inquest he ascribed the death of the woman to morphia.

IV. That he did not seek for *meconic acid* in the contents of the stomach to confirm or rebut his chemical results before giving this opinion.

Upon this we must remark that meconic acid is easily detected when present, and that the equivalent of a grain of opium yields it readily, and in comparatively large quantity. If Dr. Letheby had found meconic acid in the contents, the presence of opium would have been proved, and any mistake respecting morphia removed. As he is quite silent on this point, it is clear that he did not find it, and he had, therefore, no right to suggest that any opium was present, much less the equivalent of a *grain*. The analysis of the *medicines* by which the mistake was discovered and corrected is quite beside the question, so far as public safety is concerned. In nineteen cases out of twenty, as we are informed, a chemical opinion must be founded on an analysis of the *stomach* and *its contents alone*. There are no medicines forthcoming to correct any possible mistake. An analyst is not allowed to reserve his "final opinion" on a question of fact. The presence or absence of opium or of its constituents in the contents of a stomach is a mere question of fact, and should rest, ay or no, on an independent investigation. If there had been opium in any one mixture found in deceased's bedroom, it is highly probable that Dr. Letheby would have adhered to his opinion of the presence of morphia in the stomach, although it was clearly based on imperfect or insufficient chemical processes. Nay, if there had been no medicine forthcoming to convince Dr. Letheby of his mistake, he would probably have adhered to his deposition at the adjourned inquest. The quantity of morphia which he said he found was such that a man of his experience and research was not likely to be mistaken in the results. An analyst may be mistrusted when he swears to a mere trace (*i. e.* a quantity to which no weight can be assigned—some thousandths of a grain), but when he fixes on the *tenth part of a grain*, his opinion, if a person of experience, is likely to be received without question. If the husband of this woman had had an interest in her death, and had given to her the whole of her medicine at a draught—the fact that "she became deeply comatose, and soon afterwards expired in his arms," might, with this analysis of the stomach, have told heavily against him on a trial for murder.

The history of this case shows clearly that analyses, on which so much depends, should not be entrusted to the hands of one person. A man's life or character may actually turn upon a mistake of this kind. We must strongly protest against the use of the terms "careful chemical examination" being employed under such circumstances as these. No chemical examination for opium can be considered to be carefully conducted, in which meconic acid is not looked for; and no opinion of its presence can be safely given, unless it be clearly found as well as morphia. That there should be so much as an equivalent of a grain of opium in only two or three teaspoonfuls of a liquid, and yet a mistake made regarding its presence, is indeed surprising, considering the recent advances of toxicology.

THE WEEK.

The Educational Franchise is finding favour, we are happy to say, with many of the leading members of our Profession. A memorial in favour of the representation in Parliament of the educated classes has just been sent to Lord Palmerston. It is signed by many of the most distinguished men of the day, among whom we find the names of Sir B. Brodie, Dr. Mayo, Professor Owen, Dr. Latham, Sir P. Crampton, Mr. Cæsar Hawkins, Dr. Acland, Dr. Watson, Mr. Travers, Dr. Corrigan, Dr. Bright, Sir Charles Locock, and others. It is hoped that a distinct and separate representation may be conferred on the educated classes, amalgamated in separate *territorial* not *professional* constituencies,—"that the members so obtained may be as much as possible free from the exclusive influences of any single class or profession." In this important principle the proposed franchise would differ from the offer of Lord John Russell to enfranchise our Profession. Great difficulties would be thus avoided, but it is an open question whether more useful members would not be returned by a professional constituency.

The following striking observations in a leading article in the *Times* this week should be noted:—"The total number of lunatics in Scotland is 7,403, and of this number 3,904 are paupers. What does this mean? It means that the pauper population of Scotland supply more than half the total number of lunatics in the kingdom. There is a direct con-

nexion between pauperism and lunacy. Poverty and mania act and react on each other, and it is at once a cruel system and a false economy which could lead the Poor-law Board to reduce to a minimum the amount of relief afforded to a pauper lunatic." . . . . . "What does the country gain by starving its pauper lunatics on a miserable groat a-week? It gains a family of imbeciles. It is well known in what a promiscuous way large numbers of the lower classes live,—how many beds in a room, how many sleepers in a bed, and how men and women huddle together without the slightest sense of decency. The consequence we find in our reports as to the number of idiot mothers—a number that is concealed as much as possible, in order to screen from just punishment those who permitted such a wrong. In one small parish in the North of Scotland there were not less than five of such imbecile women who had become mothers when the Commissioners were making their inquiries. It thus happens that to save the allowance of one imbecile, the country is endowed with a family of imbeciles." Humanity, like Honesty, pays in the long run.

The following comparison has been made by Mr. S. J. Chew of the dietaries of the Leicester Gaol and Workhouse. We apprehend that Leicester is not the only town in the kingdom in which criminals are much better treated than paupers.

Workhouse Breakfast.	Gaol Breakfast.
Every morning in the week 7oz. of bread and a pint and a half of milk porridge.	Four mornings in the week one pint of oatmeal gruel and 8oz. of bread; three mornings in the week one pint of cocoa (sweetened) and 8oz. of bread.
Workhouse Supper.	**Gaol Supper.**
Three nights in the week 1½ pint of milk porridge and 7oz. of bread. Four nights in the week 1½oz. of cheese and 7oz. of bread.	Every night 1 pint of oatmeal gruel and 8oz. of bread.

No advantage on the side of the gaol, so far, perhaps; but now let us look at the dinners:—

	Sunday.
Workhouse.	Gaol.
5oz. of cooked meat and 16oz. of potatoes.	4oz. of cooked meat, 16oz. of potatoes, and 6oz. of bread.
	Monday.
4 oz. of bread and 1½ pint of peas soup. (This soup is made of pea, oatmeal, onions, &c., and is boiled in the liquor from the beef cooked on Sunday.)	1 pint of soup, 16oz. of potatoes, and 6oz. of bread. (Each pint of soup contains 3oz. of cooked meat, 3oz. of potatoes, 1oz. of oatmeal, and 1oz. of onions.)
	Tuesday.
5oz. of cooked meat and 16oz. of potatoes.	4oz. of cooked meat, 16oz. of potatoes, and 6oz. of bread.
	Wednesday.
1½ pint of meat soup and 4oz. of bread. (This soup does not contain so much meat and potatoes as does the goal soup.)	1 pint of soup, 16oz. of potatoes, and 6oz. of bread.
	Thursday.
5oz. of cooked meat and 16oz. of potatoes.	4oz. of cooked meat, 16oz. of potatoes, and 6oz. of bread.
	Friday.
1½ pint of broth and 5 oz. of bread.	1 pint of soup, 16oz. of potatoes, and 6oz. of bread.
	Saturday.
16oz. of suet pudding.	4oz. of cooked meat, 16oz. of potatoes, and 6oz. of bread.

The House of Commons has just ordered further Medical reports on the site of Netley Hospital to be printed. The tenor of these reports is very well known, as the latest is dated last March. We may state, however, that we have lately made a visit to the spot, and inspected the works, which are progressing rapidly. The site is most picturesque and beautiful, and we feel more than ever convinced that it has been most judiciously selected.

The Birmingham controversy has advanced another stage. At the conference of the Committee of Subscribers with the Council, the following proposal was made by the Council:—

"The Council are willing to accede to the appointment of Mr. James F. West, as Assistant-Surgeon, which office Mr. West offered to accept on the 26th of October last. The Council are willing to place the Assistant-Surgeoncy on the same footing as the Assistant-Surgeoncy at University College Hospital, London. The Assistant-Surgeon to attend Mondays, Wednesdays, and Saturdays, and to take charge of all out-patients who may apply between the hours of twelve and two o'clock p.m. The Assistant-Surgeon to have the privilege of admitting into the wards under his own especial care, on the securing an in-patient ticket, such out-patients as may require a capital operation. The Assistant-Surgeon to be entitled to attend at all consultations, and also at all operations and inspections."

The Committee refused to recommend the adoption of this proposal to the subscribers, and another public meeting was held on the 18th, at which it was resolved, after refusing to recommend Mr. West to accept the proposal, to propose another compromise in these terms:—"That this Meeting is distinctly of opinion that Mr. West was legally elected to fill the vacant office of Surgeon to the Queen's Hospital, on the 14th of October last, and that no subsequent act of the Council of the Queen's College has invalidated that election; but if the Council wish for the services of Mr. Gamgee in the capacity of Surgeon to the Hospital, this Meeting would approve of such an alteration in the laws as should enable the Council to elect him, and this Meeting would approve of his appointment." Since then the Warden of the College has resigned, being fully persuaded, he says, "that the election of Mr. West on the 18th of October, whether legal or not, was based on injustice, being the result of canvassing, of the fact of which canvassing I have no doubt from the evidence of my own eyes and ears, and which gave an unfair advantage to one candidate over the others." Mr. Sands Cox says, "A fair statement of the facts attending the election has been laid before her Majesty's Attorney-General for his opinion, and should he pronounce that Mr. West has been legally elected, I shall at once bow to that opinion." This opinion, however, is against the validity of Mr. West's election. The facts having been submitted to the Attorney-General and to Mr. Serjeant Hayes for their joint opinion, their opinion has been given that "the election of Mr. West was not valid." Acting on this opinion, Mr. Gamgee has written to the Principal of the College, saying, "In the event of Mr. West's supporters on the Council of Queen's College concurring in that decision, I shall then be prepared to retire from the position of Surgeon to the Queen's Hospital, and Lecturer on Clinical Surgery in the Queen's College, to which the Council appointed me on 13th November ult., and the duties of which office I have discharged in obedience to the Council's order. When candidates are again invited by public advertisement, I propose re-submitting my claims for the Council's consideration." Such was the state of things "when our latest despatch left," as our Daily contemporaries say. We had almost forgotten to state, however, that at the meeting on Saturday that estimable Apostolic representative, Canon Miller, was good enough to honour us by disclaiming the Samaritan position, "without the oil and the two-pence" we gave him last week, because, forsooth, he got £80 for the

Hospital some time ago, when his own respectable prejudices had not been ruffled. A bright pattern of Christian benevolence—also of the New School! He saw A in distress, and got B to relieve him. The Canon insinuates that our articles advocating a purer practice in hospital elections are concocted in Birmingham, and "return to the place where they were born." This is charity of the kind which "believeth all things"—against one's neighbour.

On Tuesday, the Fellows of the College of Physicians dined together at the Thatched House Tavern. They mustered strong. The heads of the Profession were well represented. These quarterly *comitia* dinners, after the examination and admission of licentiates, inaugurate a new epoch in the life of the College of Physicians. The day of exclusiveness is waning, and we hail the dawn of liberality and good-fellowship! The College must gain force and power through such union of its members.

REVIEW.

Descriptive Catalogue of the Antiquities of Stone, Earthen, and Vegetable Materials, in the Museum of the Royal Irish Academy. By W. R. Wilde, M.R.I.A., Secretary of Foreign Correspondence to the Academy. Dublin, 1857. 8vo, pp. 246.

The following extracts from this last production of its indefatigable author will doubtless interest our readers, and will serve better than any remarks of our own to illustrate the varied lore he has brought to bear upon the interesting collection he describes.

"SPECIES IX.—MEDICINE.

"Under this head may be classed all those objects either used directly for medical or surgical purposes, such as instruments and medicine stamps, or indirectly, as prophylactics, in the shape of amulets and bullæ, &c., against the supposed influence of fairies, or the 'evil eye,' or disease in man or the lower animals,—a custom still in use over a large portion of the inhabited globe. The latter variety of these objects occupies a middle rank between medicine and religion. The lucky horse-shoe, fastened on the threshold or the door-post, and 'the seven blessed irons,' formerly hung round children's necks, are familiar examples of such objects in Ireland; while the coral hand with the pointed fingers, so much worn by all classes in southern Europe, is too well known to require description.

"*Medicine Stamps*, of Roman origin, have recently attracted the attention of the learned both in Great Britain and on the Continent, where several have of late years been brought to light. They are small stone tablets, engraved with letters, and were used either for impressing wax or marking some substitute for paper. They are generally oculists' stamps. One of these was found at Golden Bridge, county of Tipperary, on a plot of ground called the Spittle Fields, containing some ruins traditionally known as 'The Hospital,' and is now in the possession of Dr. Dowsley, of Clonmel, who has kindly placed a model of it in the Museum. The inscription on it has been thus deciphered by Mr. Albert Way:—'Marci juventii tutiani diamysus ad veteres cicatrices.' A little mark at the close of the first line, resembling a minuscule c, is somewhat indistinct.' This is one of the few relics of Roman art (except some coins) which have as yet been discovered in Ireland.

"*Amulets*—Not unlike the modern amulet, usually denominated a 'gospel,' which bears upon its surface the rude representation of a cross, bearing a 'remonstrance.' It is 1¼ inches high, and something more broad. It is of limestone, and appears to have been much worn. Somewhat of the same class is the shield-shaped stone, No. 3, in that series of ornaments.

"*Crystal Balls* and ovals, varying from the size of a marble to that of a small orange, are to be found in many collections of antiquities in the British Isles. Such objects formed part of the decoration of ecclesiastical shrines, of which several may be seen in the Museum; for example, in the Cross of Cong, the Cathach of the O'Donnels, and the Domnach Airgid; and globes of rock-crystal are set in most sceptres, as may be seen among those in the regalia of Scotland, preserved in Edinburgh Castle. The smaller kind, and those not of a globular form, manifestly belonged to shrines, from which, perhaps, their peculiar sanative efficacy was supposed to be derived. Globular masses of rock-crystal unconnected with either shrines or sceptres, have been preserved in Irish families for centuries past, and have always been regarded with peculiar veneration, not only for their great antiquity, but on account of the virtue assigned to them by the people, as amulets or charms, to be used in the prevention or cure of cattle distempers. One of the most celebrated of these crystal globes is that in the possession of the Marquis of Waterford, concerning which there is a tradition in the family that it was brought from the Holy Land by one of his Le Poer ancestors at the time of the Crusades. This is eagerly sought after, even in remote districts, in order to be placed in a running stream, through which the diseased cattle are driven backwards and forwards, when a cure is said to be effected; or it is placed in the water given them to drink These crystal balls were also regarded as magic mirrors, such as those described by Spenser. We possess two of them in the Academy. One is 2¼ inches in diameter, and the other 2⅛. These amulets are described by Dalyell, in his 'Darker Superstitions in Scotland,' p. 155, who gives an account of the most remarkable one north of the Tweed. See also Sir E. L. Bulwer's novel of 'The Caxtons,' vol. ii. p. 343, and Sir Walter Scott's novels of 'The Talisman' and 'My Aunt Margaret's Mirror.'"

GENERAL CORRESPONDENCE.

DUTIES OF SURGEONS OF RAILWAY COMPANIES.

[To the Editor of the Medical Times and Gazette.]

Sir,—I find in your Journal of the 19th of December, an editorial article on a case recently before the public, in consequence of an action brought in the Court of Common Pleas by Mr. Timothy Brown, against the South-Eastern Railway Company. In that article I am made to cut a conspicuous and no very enviable figure.

Every one knows that newspaper reports, when they relate to Medical evidence, are proverbially inaccurate, and generally absurd.

In my examination in chief I detailed with great minuteness every circumstance which transpired at the interview I had with Mr. Brown on the 4th of November, five days after the accident, and satisfied both the judge and jury that Mr. Brown was in full possession of all his mental faculties at the time I paid him the money in compensation for his losses and personal injury. The examination-in-chief, although omitting some very important particulars, I do not much complain of.

The account of my cross-examination is exceedingly meagre and highly absurd, as I am there made to say what I never did say, and much that I did say bearing on the merits of the case is altogether omitted. I may mention one instance of the former. I am there stated to have said that I "have endeavoured to make bargains with sick persons in bed;" whereas I said, "I had *not* endeavoured to settle with persons in bed,"—"that I did not remember a single instance in which such an occurrence had happened; but that if ever such a settlement had been made, it must have been in the presence of, and with the sanction of the Medical attendant."

Take another instance. I was asked whether I had examined Mr. Brown; I said I had not, as his case was, from his own report, very slight. Next I was asked whether a slight injury of the chest might not at a future period become very severe in its consequences. I said it certainly might; but then no examination would render such a condition apparent at the time.

In my examination by Mr. Petersdorf, I was asked, whether a person with an injury or concussion of the spine would not be likely to make some complaint of this at the time of the accident? I answered, Certainly, as such cases were usually of the greatest severity. As to the making of bargains, and the carrying of bundles of receipts about me, these are stock

cross-examination questions, and having anticipated them all in my own mind, I was fully prepared for them, and answered them in such a manner as not to render myself quite so ridiculous as your abstract from the *Times* newspaper would make me appear.

I may tell you that my evidence was not impugned in one single particular; and in Mr. Hawkins's address to the jury, I understand I was simply abused, but my veracity was not questioned.

I may be permitted to state that I was requested by counsel to attend in court to assist in rebutting the plaintiff's Medical testimony. I declined this, as in no way a part of my duty, and abstained from coming into court until just before I was required to give my evidence.

I find Mr. Brown is stated in his evidence to have said that, with the aid of an assistant, he wrote me a letter on the following day, repudiating the transaction on the ground of his complete state of unconsciousness at the time. I can only say in answer to this that the letter was well written, both as to composition and penmanship, militating against the hypothesis of either the cerebral or spinal injury (even at the time of my visit); and further, that another letter was read in court from the *Morning Star*, of the second or third day after the accident, also said to be a *joint-production*, in which Mr. Brown congratulates himself, after a minute description of the circumstances attending the collision, &c., "*that he was fortunate enough to escape with a few trifling bruises.*" Where, then, could be the necessity of an assistant to write the letter?

Thus much for my evidence in this, to me, most annoying case. With respect to the employment of Medical men as agents for compensation in cases of accident from railway collision, the office is no light one, and is certainly a most responsible one.

That a Surgeon should be employed to see persons as soon after an accident as possible, on behalf of the railway company, I think no reasonable person can doubt; for, as is the case with myself, and as I stated in my examination, his first duty is to ascertain the extent of injury, and to see that patients have proper advice. In reference to this I have always advised persons to send at once to their Medical attendant, and I have always endeavoured to meet such medical man at his earliest convenience.

That part of the question, however, relating to compensation for losses and injuries is certainly attended with greater difficulties; nevertheless, putting aside the valuation of losses, which is not strictly professional, and which is always best left to the persons themselves and their friends, I am firmly of opinion that a Medical man of ordinary acumen and of active business habits will do more for the benefit of both patients and railway companies than the members of any other profession.

I am quite certain, from my own experience, which is unfortunately not limited in such matters, that the injured as a rule obtain more benefit at the hands of respectable Medical men, than results to them after the tedious process of actions at law. I am touching upon tender ground here; but I am in this opinion strengthened by that of many persons of respectability, members of the legal profession, with whom I have had the pleasure of effecting very many compensations, and with whose concurrence I have been the means of giving satisfaction to those who are the recipients of money in compensation for injuries resulting from railway accidents.

I am, &c. JOHN ADAMS.

4, St. Helen's-pl., Dec. 22, 1857.

PERFORATION OF THE MEMBRANA TYMPANI.

[To the Editor of the Medical Times and Gazette.]

SIR,—I am not desirous, nor do I intend to, enter into the controversy between Mr. Yearsley and Mr. Toynbee, but wish to submit a few observations bearing upon the subject of a perforated or lacerated membrana tympani. In 1822, the late Duke of Wellington had this membrane ruptured, by being in advance of a howitzer which was being tried. He went to a practitioner of aural surgery, who always thought, or told his patients, that the drum of their ears had become thickened, and his constant treatment was solution of lunar caustic. This story was, as usual with him, repeated to the Duke. The caustic was dropped in, and the liquid went into the cavity of the tympanum, where it produced such mischief that the Duke's life was in great jeopardy, and his sense of hearing on his best side was for ever obliterated.

On the other side (the right) there was a small hole, just below the point of attachment of the handle of the malleus; when that hole was open, the Duke heard tolerably well, because the sound passed through, impinging on the round aperture and base of the stapes, and so communicated the sensation to the soft portion of the auditory nerve. As an illustration of this, on the 15th of June, 1838, the Duke sent his under-steward in a cab to fetch me to Apsley-house immediately. On examining the ear I found a small scale of exfoliated epidermis had become placed over the hole in the membrane: with a small piece of cotton wool on one of my own prepared instruments, I removed the scale, and the Duke heard instantly, as he usually did. This was altogether a momentary work.

Another case, a young officer, was in this country on leave from his regiment in India. He had been on bad terms with his commanding officer. After a little time, from changes in the regiment, this young officer stood for promotion, and the commanding officer wrote so to the Horse Guards, but said he was not eligible on account of deafness. The young gentleman was summoned to the Commander-in-Chief's office, and ordered to present himself at the Army Medical Board, and thence, as the Board said they knew nothing about deafness, he was sent by them to me. On examination, I found the lower portion of the membrana tympani, on both sides, destroyed, up as far as the point of attachment of the malleus, which he told me was occasioned by whooping-cough. At the bottom of the meatus, and extending into the cavitas tympani, there was a small portion of thick mucus. I inquired whether he heard better at one time than another, and if so, under what circumstances; he replied, that after syringing his ears he was very deaf, but if he had a gallop of a mile or two, or was near a cannon when fired, he heard well for twelve or sixteen hours. I accordingly syringed his ears, directed him to get into an omnibus, sit at the hinder part, and travel two or three miles, then return to me; when he heard quite well. The rationale of this is, the collection of mucus prevented the vibration of the internal membranes; the lotion which was injected, ℥iv. liquor. plumb. diacet., aqua destil. ℥iv. 98°, liquified the mucus, and by the shaking of the body the obstructing matter descended through the Eustachian tube. I felt myself justified in this case to give my certificate of his competence to perform his duty as an officer, to the authorities at the Horse Guards, and he obtained his promotion.

Mr. Wilde, of Dublin, speaks very well of Mr. Yearsley's application of cotton-wool, and relates the case of a lady who also accidentally used it with advantage several years ago, but she moistens her piece of cotton with fine oil. Mr. Wilde notices Mr. Toynbee's instrument; he says, "I have no experience of it, but I doubt its general applicability."

I saw one gentleman to whom Mr. Yearsley's plan of applying the cotton was of great service; I have also had several patients who had tried Mr. Toynbee's artificial membrane without advantage, and discontinued it because they could not bear it in the ear.

When I was writing my little work in 1839, my valued friend, Sir Astley Cooper, wrote a part of the article on the perforation of the membrana tympani, for which he received the Copleian Medal in 1800, and he gave me permission to use it in his name. See the strange mutations! he had a medal for letting in sound to the internal membranes, Mr. Toynbee has one for shutting sound out! There is certainly a great, very great, difference in the capabilities of the two bodies who awarded them.

But we have now a gentleman who will render the cotton and artificial membrana tympani alike useless,—Dr. Nottingham, a Licentiate of the College of Physicians, and Fellow of the Royal College of Surgeons, England, First Medical Officer of St. Anne's Dispensary, and Eye and Ear Institution, Liverpool. This gentleman has published a book this year, of 644 pages, filled with most extraordinary anonymous cases.

Page 1, case, a "loss of membrana tympani;" treatment, "four drops of warm olive oil dropped in, cotton-wool soaked in oil pushed to the bottom of the auditory passage, fitting it well at top." A most scientific way, truly, of applying the cotton-wool!

Page 10, a similar case; artificial substitute for "the lost drum-head; a piece of thin leather, with an entomologist's pin through it as a handle, or a small wire shirt-button, with a pin through it as a stalk." Can this be intended as serious advice? Or is it an attempt to ridicule the artificial membrana tympani?

Page 64, case of "scarlatina, inflammation of the tympanum, loss of the membrana tympani, and of hearing and speech, discharge of the ossicula, and of sequestra of the temporal bone, discharge of carious bone from mastoid process, otorrhœa." Treatment, "solution of sulphate of copper dropped in, ears kept clean, nitrate of silver rubbed over mastoid process, from November, 1853, to June, 1854, when hearing and speech were restored." ! ! !

How anatomists up to the present time must have been in error in supposing that the perfect organization of the auditory apparatus was necessary! This gentleman, graced with the above titles, contradicts all former physiologists, and shows to those who can believe it, that a little sulphate of copper and nitrate of silver will remedy the destruction of what has been considered by all reasonable men most essential to produce the sense of hearing.

I am, &c. W. Wright.

4, Duke-street, St. James'-square,
December 15, 1857.

ON THE ABUSES WHICH OBTAIN IN MEDICAL CHARITIES.

[To the Editor of the Medical Times and Gazette.]

Sir,—It augurs well for the cause of Medical reform when the attention of laymen is directed to subjects which have hitherto been too much looked upon as of interest to members of the Medical Profession exclusively.

When Lord Shaftesbury takes the chair at a meeting for Poor-law Medical Reform, when Sir Benjamin Hall perceives that his "Act for the better Management of the Metropolis" is not complete without some provision for the public health of that metropolis; when Lord Stanley appears as President of the section "Public Health" at the "social" gathering in Birmingham; when a daily journal—the Government organ—calls (Oct. 17) Sir Benjamin Brodie to account for not specifying Medical charities in his speech on the abuse of charitable institutions in general, we see that public attention is being directed to questions of Professional interest; the grievances under which we suffer are acknowledged to be grievances which affect the community at large; that which has hitherto been regarded as the humble petition of the doctors will now be received as the just demand of the public. We have gained great vantage ground. One great hindrance in the way of Medical reform is removed—*Medical reform is not so much a medical as a social question.*

From this position, before we enter on our subject, let us regard the question of Poor-law Medical Reform. I have read with deep interest the letters which have from time to time appeared in your valuable Journal on this topic: my heart has burned with professional indignation at the facts brought to light by the indefatigable Mr. Griffin—the isolated facts "quorum pars magna fuit," and the cumulated facts which he has with such pains collected—but the cause is endangered, at least it loses half its moral weight, when advocated as if it concerned chiefly, if not exclusively, the Poor-law Medical officers. This is the limited view of A, who wonders that B will submit to such treatment; and when C calls upon the Medical officers to name their day and resign in a body, his horizon is little, if at all, more extensive. The cause, however, is strong when urged on professional grounds; and stronger still does it become when the Profession, carried away by sympathy for the suffering poor, forgets itself to plead their cause, and in virtue of its acknowledged faithfulness to the public, takes public ground for the changes that it seeks.

When we show the hardship of the present system on the poor, and the consequent injury to the community, the superficial yet telling reply, that 'Medical men are always found willing to accept the terms,' finds no place; whereas, if it seem to be a Medical Officer only who feels himself aggrieved, this apparently sufficient answer is made too convenient to be resisted, and a Weymouth Board will be found ready to suggest, even to a faithful servant—"If you do not like your post, you had better resign." All honour to Mr. Griffin that he has not resigned. *Frequent resignations perpetuate the evil.*

I pass to another, but a kindred grievance, probably the parent, if the truth were known, of the former—the abuse of Medical Charities. This in like manner has been treated almost exclusively as a professional, if not a personal grievance, whereas the injury to those whom we desire to relieve is rarely hinted at, and thus one of the strongest arguments is neglected.

In the Royal Pimlico Dispensary the somewhat unusual course is adopted of providing for the lying-in cases attendance—not by pupils, still less by midwives, but—by legally qualified medical men. The last report gives 185 cases so attended during the year: for this, as for the other work done by the honorary staff, no payment is made. I am thus explicit, because many have expressed their surprise that even ordinary patients should be visited at their own houses by other than the salaried resident House-surgeon; and that lying-in cases should be attended by honorary Medical officers, has been thought incredible. With a full knowledge of what the labour is in both services, though the former alone is my province, I am glad that such is the custom. *My regret is not that we are obliged to do so much, but that it is sometimes impossible to do more.* The burden would be much greater if our duty was merely to attend at the Dispensary so many times a week, (compelled, as we sometimes are, to see more patients than can be seen properly in a given time) if those who wanted more attention, or who were too ill to come, were transferred to the care of an already over-wrought House-surgeon, and midwifery was left to midwives, excepting only cases of emergency.

The class of patients who attend are many of them paupers—say one-fourth—one-half of them may be from the families of mechanics, who in time of sickness require assistance; the rest are better(?)-sort of mechanics, in rare cases earning so much as three guineas a week, and gentlemen's servants. When any of the wives of the "better-sort" bring lying-in letters, the injustice is so obvious that discussion is apt to arise, and amid the diversity of opinion that exists as to the propriety of admitting them at all, there is tolerable unanimity that the medical attendant ought in such cases to be paid.

But our Dispensary, like most others, is continually in debt, and at best struggles for existence; so that however desirous the Committee may be, and *desirous they are, to do justice, they have not the power;* it is evident, that if the accoucheurs are to be paid, the patients must themselves make an effort. Accordingly, about two years ago, the following motion was brought forward, and referred to a Sub-Committee—"That a small sum be charged to the patients in every case of midwifery." The duty of the Sub-Committee was to inquire into the precedents for such a step, rather than to report on the question of payment to the accoucheurs.

As Physician to the Dispensary, I hoped to enter on the investigation *con amore*, without the prejudice to the cause which must arise when a man seems to be actuated by motives of self-interest.

It should, however, be observed that there is nothing dishonourable in working for oneself; the *dishonour attaches to the act which is professedly disinterested, but is in reality selfish.* To advocate a scheme in which any one man, or a few men, or even a class, is benefitted at the expense of others, is selfish; but to support that which is beneficial to the community is philanthropic.

I wrote to the different Medical Journals for advice. My letter was courteously inserted, but no one wrote in reply. On searching the correspondence in former years, the letters of Mr. Smith, of Southam, seemed to go to the root of the matter, and to offer some prospect of a solution to our difficulty. And more than this, the payment of accoucheurs was but part of his promise: he would pay all in proportion to the work done. This discovery that I could no longer act as a disinterested party would have proved a great hindrance, had not Mr. Smith's plan been founded on *a principle* which has reference to the poor, and which only affects the Medical Profession, because they are, from the nature of the case, the chief agents in its application.

In the discussion of a new *principle* of action, we had a

favourable opportunity of examining the whole subject *ab initio*, and it was most encouraging to perceive that the true way of relieving the Profession from injustice, is to see to it that those for whom the sacrifice has been made are not themselves unjustly treated. This discovery is in accordance with what we should expect; for, viewing the human family as one body, it is natural that injury to an individual, much more to a number of individuals, should prove injurious more or less to every part of the community; and conversely, that the study of the good of the whole should prove the surest way of removing that which is hurtful to a part.

There is also another advantage in dealing with *principles* in works of reformation. An evil principle is productive of many separate ills: remove one ill, and the rest remain untouched; but uproot an evil principle, and the many ills are gone. Take an illustration. Your neighbour is a bad man; he is a drunkard, he is also, etc. Induce him to sign the pledge; he may forsake his sottishness, but he is, etc., still. But let his heart be changed—he is no more a drunkard, and his whole man becomes reformed.

Apply the parable to the case of Medical charities. In evidence before the House of Commons, it was proved that the tendency of charitable institutions, wherein the principle of self-reliance is not encouraged, is to the increase of pauperism. Here is an ill traced to an evil *principle*. Mr. Smith has shown how Medical charities may be made conducive to the moral and social well-being of the patients; and, more than this, Dispensaries founded on the principles laid down by him make a fair promise to amend the injustice of which the Profession complains; and also, if carried out fearlessly, to remove other evils which arise of necessity, when these principles are neglected.

Mr. Smith informs me that at Northampton the payments of the poor amount to £12 per week; and according to the eleventh Report of the Dispensary in that place, the Medical attendant first on the list received £186 for the year, and others in proportion to their share in the work. From an independent source—a Physician of the Hospital, not connected with the Dispensary—I am satisfied that the Institution is not professionally objectionable. While I refer to the encouragement derived on finding Mr. Smith's efforts so successful at Northampton, Derby, and Coventry, I am bound to admit that in other places there have been failures so signal, that I can forgive a cotemporary the expression (though I believe it to be unjust), when he says of Provident Dispensaries, they are 'a snare, a mockery, and a delusion.' He has possibly seen the failures, and has not observed the cause of them; that they may be traced to neglect of sound principles, through fear of following them to their full extent. Failures here, as elsewhere, are useful in pointing out that *a trifling error in principle will eventually be productive in a genial soil of results that are disastrous.*"

With this *primâ facie* evidence the sub-committee reported that they thought it advisable to appoint a larger sub-committee to consider the question of Provident Dispensaries. Accordingly it was referred to a number of gentlemen, Medical and lay, who testified their interest in the subject by meeting for twelve weeks in succession, and at other times, to discuss the matter. The most of them were at first not favourable to the scheme, some thinking it unadvisable, and nearly all judging it to be impracticable, so that there was full and free discussion.

For the sake of obtaining information and advice I have printed the remarks which were read before the sub-committee, and have circulated them among such of my acquaintance as seemed able and willing to give reliable information; and among strangers of whom I heard or read, that their liberal views gave promise that prejudice would not influence them: I have been encouraged to proceed. Being convinced that truth need not fear opposition, but the contrary, *I have invariably welcomed a candid opponent*, and have generally found him a helper not a hinderer of the work. On this ground I selected several of the members of the sub-committee, and am to them more than to any indebted for valuable modifications of Mr. Smith's plan without sacrifice of principle.

I wait your command, and the expressed wishes of your readers whether to trespass further on your patience. The liberal spirit in which matters of controversy have been dealt with in your pages gives me confidence that my opponents will not make the subject a personal one, but will remember that this particular subject has been taken up under circumstances most advantageous for dispassionate inquiry: that it was my first endeavour to remedy an evil from which I did not myself personally suffer; that this evil was found to be the natural fruit of an unsound principle, and that it was in my search after a remedy that I adopted the views of Mr. Smith, of Southam, because I found that institutions *based upon Provident principles* were free not only from the evil in question, but from other evils which are commonly more or less prominent and injurious. While engaged in the investigation of these new principles, I was startled for a moment by the sweeping condemnation to which reference has been made. If I had been taking a lower ground—*e.g.* the payment of Medical men—I might well have stopped in my career, but working on a more secure and in case of charity more proper basis, the welfare of the poor, the remark served only to warn me against the errors into which certain Provident Dispensaries have fallen, and to convince me that it is better to discuss *a principle and follow where it leads* than to be led blindfolded by any man, though he be my teacher, and, like Mr. Smith, one to whom every advocate of Provident Dispensaries will look with respect as the first promoter.

I shall have great pleasure in forwarding by post a copy of my pamphlet to any who will promise me in return a candid and *private* criticism. I say private, because it would not be fair to the cause to refer publicly to a pamphlet which is at present only privately distributed. But of course that which I have written in your Journal is public property; I should, however, feel greater satisfaction in the reply, whether adverse or otherwise, which may be called forth, if I knew that the writer had read the few pages in which the matter has been briefly discussed.

I am, &c. WILLIAM OGLE.

9, Lower Belgrave-street, Dec. 9, 1857.

Resolutions adopted by the Sub-committee appointed for the consideration of Mr. Smith's plan of Provident Dispensaries:—

1. That Provident Dispensaries are more likely to be beneficial to the *physical*, *social*, and *moral* well-being of the poor, than Dispensaries where Medical aid is granted free of all charge.

2. That Provident Dispensaries are likely to be beneficial(a) to the Medical Profession, because, while they promise superior advantages to the poor, they offer some protection against those evils to which every system of gratuitous advice is liable.

3. That Provident Dispensaries, inasmuch as they are likely to be more advantageous to the poor, are worthy of the liberal support of the public, and that this support is still called for, as the poor cannot be expected to contribute more than a fractional part of the necessary expenses.

ON SOME OF THE CAUSES THAT

VITIATE THE AIR INHALED INTO THE LUNGS,

[To the Editor of the Medical Times and Gazette.]

SIR,—I owe some apology to my Medical readers for presuming to treat a subject which lies more within their province than mine, and which is consequently better understood by them.

My apology is that my practice, although not strictly Medical, has many features in common with that science, and cases are constantly presenting themselves respecting which, if revealed in time to the Physician, or if even suspected by him, upon consultation, much suffering might often be spared.

"A drop will make a stone hollow, not by force, but by often falling."

Although the present subject has occupied my attention for many years, it might possibly have still remained semi-dormant in my mind, but for the casual re-encounter with an old friend, and the possession of a little leisure.

This gentleman complained of the continual presence of headache, dyspepsia, etc. He is a regular liver, occupying a sufficiently salubrious residence, with no particular confine-

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(a) Carried as an amendment to the resolution as at first proposed, which was, "are likely to be acceptable."

ment to business or adherence to habits which might predispose to disease, if I except the frequent solace of a gradually darkening meerschaum. Now I do not intend to re-open the tobacco question, for in this case I conceive the meerschaum to have been only the secondary evil. He asked me what I thought of his case? This was both a delicate and difficult question for me to answer, as he had already informed me that his Medical friends had failed to relieve him.

In the practice of physic I should have been completely at sea, but long practice in my own Profession, combined with some observation, has awakened my senses to the insidious advance of disease from a cause, the very insignificance of which shrouds it from the observation of the Medical world.

While in conversation with the gentleman alluded to, I found it necessary to keep out of the influence of the noxious effluvia with which his breath was loaded. I ventured to remark that such might be an *exciting* cause of his sufferings. He had his mouth thoroughly cleansed, with directions to keep it so; his breath is now pure, let us hope his blood will follow suit.

With this parenthetical illustration I shall begin by touching lightly upon the influence of pure and vitiated air upon the blood as necessary to my subject; but in this I do not lead, but follow.

The air is composed of two gases, which widely differ from each other in their nature. Oxygen and azote, a portion of the vapour of water, and a portion of carbonic acid; this ethereal compound occupies a space around our earth something more than 45 or 50 miles in a diverging radius from the surface, and is only changed in its chemical properties by emanations from the earth or sea.

We may infer from this circumstance that nature has so ordered that pure air is the principle of life, the vis inertia of existence; its influence is at once felt upon the system; it communicates a joyous, bounding feeling to the senses, improves the appetite, strengthens the frame, improves the texture of the skin, and imparts a roseate hue to the countenance; while the action of vitiated atmosphere has a depressing and melancholic tendency, the circulation becomes feeble, the limbs languid, digestion impaired, the sight weakened, flitting, pulmonary pains are experienced, with other concomitant disorders; the lungs being thus deprived of the proportion of oxygen required to aërate the quantity of blood passing through them.

"There is scarcely a day passes in which a well employed Medical man does not meet with some instances in which health has suffered or recovery has been retarded by the thoughtless or ignorant disregard of the value of pure air to the animal economy." This passage from Dr. Andrew Coombe offers at once sufficient apology for particularly drawing attention to the subject.

There is little difficulty in the rich and well-to-do escaping from miasmatic, or any impure conditions or influences, when aware of their existence; but in my following remarks I shall endeavour to show that many unwittingly carry with them into their retreats what they would fly from, as exemplified in my parenthetical illustration. What in such a case would be gained by flying for relief to the breezes on the mountains, or the blasts on the ocean, where each inhalation is deprived of its vivifying power in its passage through the mouth to the lungs?

I have been for a lengthened period impressed with the belief that caries of the teeth arises from one cause alone, viz., the chemical agency of the salivary admixture, quite independent of food, or drink, in its proximate action; and although we are well able to characterize individual cases, I am afraid we are not yet prepared to generalize upon the subject. Certain it is that some districts, and even countries are scourged by this malady, where others are comparatively free from its attacks; inhabitants of humid districts are known to be great martyrs to decayed teeth. Here we have a diagnostic cue, which might be worked out if space permitted. However, it seems to be a physiological truth, that the atmosphere will influence the fluids of the body to a condition of health or disease.

In robust normal life diseased teeth are seldom present; in phthisical diathesis carious teeth are seldom absent; and when this exists to any extent I should hardly fear contradiction if I assert that the disease was much aggravated by the effluvia arising from their influence vitiating the respired air; and the case, I should imagine, would be further aggravated by the use of a respirator.

In cases of this nature, when a lengthened period is dragged over, the teeth are frequently reduced to stumps, when artificial teeth are often supplied, and these are frequently formed of some material more easily destroyed than the normal set. Here we have a double or sometimes a treble dose of miasma, from the still decaying stumps, the decaying artificial teeth, and often the lack of strict cleansing. So much for what it is not always in our power to prevent; and this brings me to the subject to which I wish to call particular attention, namely, the evils which it is always in our power to avoid. I allude to artificial teeth, and the materials of which they are generally composed. Were I addressing the dental profession, I should enter more into descriptive and manipulative detail; but as the members of the Medical profession do not require to make teeth, but only to know what material may be used by their patients with impunity, I shall spare them the fatigue of reading more than it is necessary for them to know.

It is now understood that there are three materials in use for artificial teeth, (not including socket or gum,) viz., natural, mineral teeth, and the various kinds of ivory. These substances are mounted or fixed upon sockets of gold, platina, or ivory, as the nature of the case may demand.

I have already stated that caries of the teeth does, in my opinion, arise solely from the destructive influences of the salivary admixture, and this action is frequently found to be so active, that the whole of the teeth are destroyed before the age of twenty. When, in a case of this nature, we insert teeth composed of animal matter with this knowledge before us, we must commit something approaching a robbery upon our patient; nor is the pecuniary loss the end of the evil, for we have not only the blood impoverished by the noxious inhalation, but the stomach destroyed by continually swallowing particles of decayed animal matter.

Although we find that the salivary fluid changes from acid to alkaline, and *vice versâ*, often more than once in a person's lifetime, yet this is not invariable, for we find this abnormal condition of the saliva to endure often throughout existence.

I need only glance at the vast amount of absorption of alveoli which takes place in the jaws of persons who have lost their teeth.

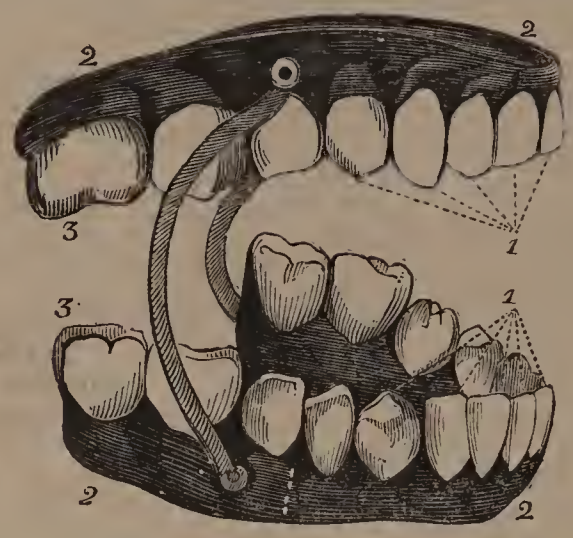
Upon referring to the marginal drawing of an upper and lower tooth *in situ*, and of natural size, it will be seen that when

the whole of the teeth are gone, and the full absorption has taken place, that about two inches is lost in length betwixt the lower part of the nose and the chin. Now, in order to restore appearance and the power of mastication, this space must be filled up, so that the lower jaw may be parallel with the upper. To accomplish this it is necessary to use two considerable pieces of some solid substance, such as ivory; that of the tusk of the hippopotamus is generally used. But this substance is open to serious objection when applied to the mouths of persons whose buccal fluids are of a corrosive nature, for it is well known that bone in such a mouth would begin to putrefy in a few days after insertion. Therefore, unless the wearer can afford a constant renewal, he must consent to be poisoned by his own inhalations.

This has been remedied by the introduction of mineral, *i.e.* China teeth and gums; but to many persons there exists a strong objection to these kind of teeth, viz., that when worn in entire sets the forgery upon nature is easily detected by artificial light. Those, therefore, who are particular about appearances can only fall back upon bone for the whole base, with natural teeth for the front, necessitating a frequent renewal of the whole set.

This, in the first place, is both expensive and troublesome; in the second, not conducive to health from the septic inhalations before alluded to; and in the third, from the softness of the bone which forms the grinding teeth, mastication is not properly performed. They (the back teeth) wear away, the jaws are allowed to approximate, and a projecting chin is the consequence.

All these objections I have endeavoured to obviate, by a method I adopted some years ago for doing away with these masses of quadrupedal bone, and substituting a vitrified mineral, which I cause to resemble gum in colour and form, which is unchangeable. Into each piece of this substance I implant the required number of front natural teeth, as will be seen in diagram, and a great advantage is here secured; the inconvenience of having new models taken for new teeth is done away with, as the same set of back teeth and gums will answer for as many renewals of the front teeth as may be required, without trouble to the wearer, and at a small cost; the other portion remaining unaltered by wear or chemical action. They are not specifically heavier than those upon the old bone system, and having a perfectly smooth surface, neither the remains of food nor the buccal mucus are so liable to adhere to them, as we find to be the case with bone, gutta percha, or, indeed, any substance which can be softened by the heat of the mouth, or the chemical action of the saliva.



1, 1. The natural teeth inserted into the vitrified mineral gum. 2, 2, 2, 2. The mineral gum. 3, 3. The grinding teeth, also of mineral.

When these circumstances are considered it is obvious that no great power is required to grasp the inference that as no amount of wear can destroy the masticating surface of the grinders, the food is not only properly masticated, but enjoyed by the wearer of this description of teeth; in consequence of this preparation the food is passed into the stomach properly prepared to undergo the natural action of digestion, and also the jaws are always kept at their relative parallel distance, the deformity of a projecting chin being avoided. Again, what I consider to be still more momentous is this—that the air in its passage to the lungs is not deprived of its vivifying principle, by passing through a mouthful of putrifying animal matter. I do not think I can be accused of using too strong language when I assert that no amount of pure atmospheric air could restore to health any patient who was compelled to inhale it through the noxious effluvia which emanates from a set of putrifying teeth, whether normal or artificial.

If I can succeed in drawing the attention of Medical practitioners to the evil effects upon health produced by the means I have thus far adverted to, much suffering may be avoided, and probably even life sometimes saved.

I am, &c. Donaldson Mackenzie.

Savile-row, W., Oct. 1857.

PROSTITUTION.

[To the Editor of the Medical Times and Gazette.]

Sir,—In an article lately appearing in your Journal, there are some most moderate and temperate statements made as to the causes and present state of Prostitution. You in that article demand discussion on this subject, and it seems to me with the greatest justice. Prostitution is certainly a great evil, and like other evils ought to be eradicated. To do this we ought to investigate its *vera causa*, and having discovered this invariable antecedent, we should endeavour to prevent if possible the necessity for Prostitution.

The best definition of a prostitute is that woman who, without any distinction (or with very little) of persons, sells her favours to all comers. Now, it must be very evident that if this definition be accepted, no woman would resort to such a dangerous and disagreable mode of life, unless it were exceedingly difficult for her to obtain a comfortable livelihood. However strongly her sex passion might move her, it would not, save in the most exceptional case, render her amenable to the epithet prostitute, were the means of subsistence easily procurable.

M. Ricord says in his "Lettres sur la Syphilis," "All those who are acquainted with the sad condition of female labour amongst us, have long ago recognised that there was the true reason of the phenomena of prostitution. To meliorate these conditions is, then, to perform a work of Hygiene and of public morals."

The true cause of Prostitution is low wages in the female sex (we are all beginning to perceive this clearly) conjoined with the fact, that prostitutes are almost invariably barren. Were the latter not a fact, prostitution would be as impossible in a civilized old society as early marriage is; although the latter has been proposed as a remedy for prostitution both by Sir B. Brodie and by Mr. Acton.

The only true method of preventing prostitution (in cures I am sceptical) is by raising the wages of women in civilized countries. They should be allowed to compete freely in all professions and trades, whether the Medical, as in some branches in France, or in whatever occupations they can succeed. But a far more fundamental cause of the low wages of both sexes lies in the intemperance so widely spread among most classes in this country in the matter of increasing their numbers. Until the married and unmarried people of this and other old countries begin to restrain the number of their families, 'tis needless to inveigh against the evils of prostitution. These are even preferable to early death, which is caused by too numerous births. In France, it is now beginning to be pretty widely understood that the person who brings a number of children into an old and thickly peopled community should be classed and shunned like the drunkard or other intemperate individual. They therefore wisely take means to prevent the overcrowding of their labour market, and are tending gradually to escape from the blots of poverty and prostitution. I am, &c.

Charles Drysdale,
Hon. Sec. of University College Medical Society.

FOREIGN BODY IN THE ŒSOPHAGUS.—CAUTION TO WEARERS OF FALSE TEETH.

[To the Editor of the Medical Times and Gazette.

Sir,—At the midnight hour of Thursday the 12th ultimo my first deep sleep was rudely broken by the violent ringing of my bells, both day and night; upon responding to which from the opened window, "a well known voice salutes the ear," and piteously but weakly craves admission and relief.

Admitted, my patient crawled feebly to, and sunk upon, an easy chair, and with a ghastly, gasping countenance pointed significantly down her throat, ejaculating, "teeth," "plate," "gold," "swallowed;" another moment, and my forefinger is exploring pharynx and œsophagus, but for the time in vain, the lost property was beyond my grasp, until the heaving retchings excited by my finger in the gullet, raised the golden treasure to its tip, to sink again instantly.

Having thus ascertained the position of affairs, my next care was to arm my right hand with a pair of long, and well curved polypus forceps, to oil my left forefinger, and drive it deeply in the gullet: following this finger with the forceps-blades, I opened wide their gripe, and waited for the rising of my game; nor had I long to wait: a moment, and the forceps closed upon the prey, and straightway is withdrawn from its awkward situation no less formidable an article than a full sized golden upper plate, or dentist's piece, carrying eight artificial teeth, a golden clasp, and (*horribile dictu!*), a golden spike or pin, full half an inch in length, of which the office was to perforate a stump, and keep the whole *in situ;* that this had scratched the lining membrane of the tube seemed plain enough; a streak or blood, much after pain, and many days' dysphagia spoke of much mischief done. Now all is well again.

For once a grateful patient hails our art with joy, and lauds it to the sky, vowing eternal gratitude for her safe delivery, and earnestly requesting publicity for the facts, as a future warning to unwary wearers of the dentist's work; acknowledging her folly in sleeping with a set of teeth which more

than once before had been found loose in her mouth on waking. On this occasion, failing to extract them from her throat, she had made the rash attempt to swallow them entire, in which she would, no doubt, have prospered, but for the sharpened pivot-pin, by which it lodged itself within her gullet, at least one-half way down. I am, &c.

December, 1857. A Provincial Practitioner.

MEDICAL NEWS.

Royal College of Surgeons.—The following gentlemen, having undergone the necessary examinations for the diploma, were admitted members of the College at the meeting of the Court of Examiners on the 11th inst. :—

Bagley, Robert Luther, Eignbrook, Hereford.
Bentley, George, Halstead, Essex.
Crosbie, Pierce Morris, Tralee, County of Kerry.
Everet, Wilton, Stepney.
Galloway, James, Penrith, Cumberland.
Morris, Richard, Aberystwith.
Smith, William Henry, Clapham-road.
Soden, John, Mohill, County of Leitrim.
Thomas, Edward Wynne, Oswestry.

The following gentlemen have just passed the preliminary examination (in classics, mathematics, and French) for the Fellowship of the College :—

Browne, James Herbert, West-street, Brighton.
Lee, Frederick Fawson, Charles-street, Trevor-square.
Mason, Francis, Bedford-place.
Walford, Walter Gilson, Cambridge.

Also, on the 18th inst. :—

Cullen, Robert Fleming, Her Majesty's Ship, St. Vincent, Portsmouth.
Fleischmann, Alfred, Leeds.
Harries, George James, Bath.
Hele, Nicholas Fenwick, Shaldon, Teignmouth, Devon.
Leigh, John, Holywell, North Wales.
Lynes, William, Wednesbury, Staffordshire.
Moxon, John, Huddersfield.
O'Loughlin, Joseph Edward, Army.
Sanderson, Arthur, Liverpool.
Smith, James Thomas, Sutton Coldfield, Warwickshire.
Williams, Charles, Royal Ophthalmic Hospital, Westminster.

At the same meeting of the Court, Mr. Thomas Alexander Roe passed his examination as Assistant-Surgeon in the Royal Navy.

Apothecaries' Hall.—Names of gentlemen who passed their examination in the Science and Practice of Medicine, and received Certificates to Practise, on Dec. 17 :—

Black, Robert J., Southgate-road, De Beauvoir-town.
Brock, William Kortright, Stapleton, near Bristol.
Giles, Samuel.
Griffin, Richard William W., Weymouth.
Gross, John Edward, East Soham.
James, Alfred, Danville.
Ryott, Frederic Elliott, Newbury, Berks.
Wilkes, George.
Williamson, John Edwin, Nantwich, Cheshire.

DEATHS.

Ashwell.—On the 21st inst., at 30, Brook-street, Grosvenor-square, Samuel Ashwell, L.R.C.P., 1835, aged 59, formerly Professor of Midwifery at Guy's Hospital. The Doctor retired to bed on the previous evening in his usual health ; and it was only last week he was saying to a Medical friend that for the last thirty years he had not had a symptom of ill-health, and had not taken a single dose of medicine.

Bell.—On the 12th inst., at Great Grimsby, William Thomas Bell, M.R.C.S.,Eng., 1852 ; L.S.A. 1853 ; aged 28.

Bush.—On the 17th inst., at Weston-super-Mare, William Maddocks Bush, M.D.

Dale.—On the 10th inst., John Dale, of Yarm, M.R.C.S. Eng. ; and L.S.A., 1852 ; aged 57.

Foss.—On Sunday, the 29th Nov., on board the Royal Mail steamship Parana, on passage from Jamaica to England, Thomas Foss, 1st Class Staff-Surgeon to the Forces, deeply and deservedly regretted.

Gordon.—On the 12th inst., at Broughty-Ferry, William Leslie Gordon.

Lucas.—On the 19th inst., in Norfolk-square, W. S. Lucas, of Bedford-place, Russell-square, M.R.C.S. Eng., 1840 ; F.R.C.S. (exam.) 1844 ; aged 41.

Precise Action of the Auriculo-Ventricular Valves of the Heart.—At the Grosvenor-place School of Medicine last Friday, Dr. G. B. Halford, lecturer on Anatomy, gave a most important demonstration of this action. It has up to the present time been believed by all physiologists—all the most diverse theories starting from the same point—viz. that during the systole of the ventricles the auriculo-ventricular valves become closed. The mechanism has been thus explained by Dr. Carpenter and others : "Whilst the ventricle is contracting upon the blood that has entered it, the carneæ columneæ, which contract simultaneously with its proper walls, put the chordæ tendineæ upon the stretch, and then draw the flaps of the valves into the auriculo-ventricular axis ; the blood then getting behind them, and being compressed by the contraction of the ventricle, forces the flaps together in such a manner as to close the orifice, but they do not fall suddenly against each other, as is the case with the semilunar valves, since they are restrained by the chordæ tendineæ."—*Human Physiology*. Contrary, however, to the above usually received opinions, Dr. Halford stated their precise action to be as follows : That at the time of the relaxation of the ventricle there is the pressure of the column of blood in the artery upon the upper surface of the semilunar valves ; the auricle now contracts, forcibly distending the ventricle, but not with sufficient force to open the semilunar valves ; then as soon as the blood gets to the level of the apices of the flaps of the valve they begin to rise upon the surface of the fluid, and in this manner the flaps of the valve are carried up by the pressure of the fluid until the ventricle is distended, when they lie upon the surface of the blood, forming a septum between the auricle and ventricle. The ventricle now contracts upon its contents, the blood cannot bear compression, the auriculo-ventricular valve and chordæ tendineæ are made suddenly tense and vibrate, causing the first sound. The pressure on the under surface of the semilunar valves overcomes that upon the upper surface ; they give way ; the blood passes into the artery ; the base of the ventricle descending ; the carneæ columneæ contracting from base of heart to apex, and thus the chordæ tendineæ are kept tense, and the resistance of the auriculo-ventricular valve to the backward pressure of the blood maintained until the ventricle is emptied. To prove the above, Dr. Halford brought the heart of an ox, and experimented thus :—The auricles were partly cut away to show the auriculo ventricular valves and the cavities of the ventricles. The coronary arteries having been tied, the aorta was connected to an elastic tube of like capacity, and this attached to a common forcing pump, by means of which a column of water was injected, but the aorta and the semilunar valves closed. Gentle pressure on the fluid was maintained in imitation of what takes place during life ; the ventricle being empty and water thrown in through the auriculo-ventricular opening, the auriculo-ventricular valve became closed as the ventricle became filled ; the more the ventricle was distended the greater became the pressure upon the under surface of the valve, and the more perfectly it was closed. When the fluid was simply dropped in, the valve became slowly closed ; but when rapidly poured in as by the auricle the valve as suddenly closed. It does not become tense until the ventricle contracts. The same experiment was tried with the right side of the heart, and with the like results. A sheep's heart was next taken and connected as above with a stomach-pump, and the same results obtained. Drs. Billing, Carpenter, Richardson, and Leared were present, taking great interest in and assisting at the experiments. Dr. Halford concluded his demonstration by stating that he intended, if opportunity were permitted him, to apply the same test to the diseased heart before cutting into the organ as usually done ; in this manner we should better test the mobility and efficiency of the valves, and sooner arrive at the origin of morbid sounds. All present concurring in the importance of the suggestion, Dr. Halford begged them to disseminate the idea among their professional brethren.

YELLOW FEVER IN LISBON.—The epidemic has oscillated in a remarkable manner. Up to the 24th of October it increased, until the attacks reached 298 per diem. Then it declined until at the end of the month they had fallen to 185. It increased again to the 4th of November, and then declined to the 15th. The number of cases to the last date had been 10,258; the deaths, 3,040. *The Medical Gazette* of Lisbon makes the curious statement that all those who live in houses lighted by gas have escaped.

INFLUENZA IN RUSSIA AND PRUSSIA.—This epidemic is very prevalent in St. Petersburg and Berlin. In Berlin certain trials were obliged to be postponed from the circumstance that out of 24 jurymen summoned, more than 12 were prevented being impanelled by being confined to their beds.

YELLOW FEVER is prevailing again in Jamaica.

SURGEONS AT DELHI.—General Wilson, in his report on the capture of Delhi, says, "Amongst those Medical officers whose unwearied zeal and superior ability have come prominently before me, are—Officiating Superintending-Surgeon C. M'Kinnon, M.D., who has been in the Medical charge of the 1st brigade Horse Artillery; Surgeon J. H. Innes, 60th Royal Rifles; Surgeon J. P. Brougham, 1st Fusiliers; Surgeon E. Hare, of the 2nd Fusiliers; Assistant-Surgeon J. J. Clifford, M.D., of the 9th Lancers; and Assistant-Surgeon W. F. Mactire, M.D., on the personal Staff of the late Commander-in-Chief. Credit is also due to Surgeon D. Scott, M.D., Medical storekeeper."

THE "MORNING POST" ON NEW HOSPITALS.—The following remarks conclude a leading article in the *Morning Post* of Wednesday last on the Abuses of Charitable Institutions in London:—"Some months ago the 'Great Northern Hospital' was announced as having been started near King's-cross, with a huge Professional staff—a proceeding which, judging from the advertisements which we have seen, was, to say the least of it, most improvident and unnecessary. Before a new Hospital was thought of in the north of London, University College Hospital ought to be adequately supported. Subscriptions are now being solicited on behalf of a proposed Hospital at Bayswater, for 'diseases of women requiring operative interference.' In that very district there is already St. Mary's Hospital, in which special attention is given to this very class of maladies. It is unable to keep all its wards open and pay its way. In the face of this notorious fact, can it be from pure and unmixed motives of charity that some enterprising gentlemen have started their project of a new Hospital at Bayswater?"

THE NORTHERN DISPENSARY.—"Thoughtless or greedy people, as was stated last Friday in our columns by 'A St. Pancras parishioner,' subscribe a guinea a year to such institutions as the Northern Dispensary upon the representation that by the performance of this act, impudently blazoned forth as a charitable act, they become 'governors,' possessed of a certain kind of patronage, including the right of nominating 'eleven cases' of sickness from among 'their own servants' or others. One of the eleven cases may, we are told, be a case of midwifery. In other words, diseases are treated, and accouchements are undertaken, by the Northern Dispensary at a cost to the governors of less than one shilling and elevenpence each case. The impossibility of bestowing medicines and medical attendance of the slightest value upon so large a scale for so small a sum of money is doubtless, when thus plainly stated, immediately perceived, but it is not seen by a host of excellent unreflecting persons till the subject is opened up to them. They, from one cause or another, give their guineas for the bribe of 'eleven cases,' and so uphold the present system of encouraging an underselling among dispensaries, and a cruel expulsion of painstaking private practitioners from all non-affluent neighbourhoods."—*Morning Post.*

SEPOY CRUELTY.—We regret to state that a young lady, the daughter of a highly respected clergyman of this city, who married a gentleman connected with the Indian service about a year since, has just returned, not only widowed, but terribly mutilated. The Sepoys have cut her tongue out, and inflicted other injuries.—*Bristol Mirror.*

PRICE OF QUININE.—M. Guibourt, in a recent statement he made to the Académie de Médecine, observed that the fears of the failure of the supply of cinchona, which has continued to be predicted for a century, are still exaggerated. One of the largest wholesale druggists in Paris has assured him that the supply of quinine was never more abundant than now, and that, after purchasing it wholesale and bottling it, he can sell it from 8 francs 40 centimes to 8 francs 80 centimes (according to the quantity bought) per bottle of 30 grammes (ʒvii½). The bottle in 1843 cost 10 francs, and since then has been temporarily raised, especially in time of cholera, to more than double this price, while it has never been lower than now. Compared with other chemical products, however, the price of quinine has not decreased sufficiently. Thus, fifty years ago the kilogramme of phosphorus, which costs now 9½ francs, cost 200. Ten years ago, chloroform, that may now be bought at 12 or 13 francs the kilogramme, cost 150 francs. The sulphuret of carbon, sold in 1838 at 12 francs per oz., now sells at 60 centimes. Sodium, at 1000 francs the kilog. in 1854, sells at 60 francs; and aluminium has fallen from 1500 to 300 francs.

DISEASE IN VIENNA.—Dysentery and cholerine are now endemic in Vienna, and foreign Medical men are inclined to attribute the prevalence of such complaints to the "abuse" of water. Their meaning probably is, that the Austrians would do well to use more water externally and less internally—*Times.*

DISEASE AMONG THE BAKWAINS.—The diseases known among the Bakwains are remarkably few. There is no consumption nor scrofula; insanity and hydrocephalus are rare. Cancer and cholera are quite unknown. Small-pox and measles passed through the country about twenty years ago, and committed great ravages; but though the former has since broken out on the coast repeatedly, neither disease has since travelled inland. For small-pox the natives employed in some parts inoculation in the forehead with some animal deposit, in other parts they employed the matter of the small-pox itself, and in one village they seem to have selected a virulent case for the matter used in the operation, for nearly all the village was swept off by the disease in a malignant confluent form. Where the idea came from I cannot conceive. It was practised by the Bakwains at a time when they had no intercourse, direct or indirect, with the Southern missionaries. They all adopt readily the use of vaccine virus when it is brought within their reach.—*Dr. Livingstone's Trav.*

VITAL STATISTICS OF LONDON.

Week ending Saturday, December 19, 1857.

BIRTHS.

Births of Boys, 936; Girls, 894; Total, 1830.
Average of 10 corresponding weeks, 1847-56, 1503.

DEATHS REGISTERED DURING THE WEEK.

CAUSES OF DEATH.	In the Week ending Saturday, Dec. 19, 1857. Deaths of Persons. AT ALL AGES.	Under 20 Years of Age.	At 20 and under 40 Years of Age.	At 40 and under 60 Years of Age.	At 60 and under 80 Years of Age.	At 80 Years of Age and Upwards.	Averages of Temperature and Deaths in 10 Weeks.
Mean Temperature	Mean temp. 45·6						39·6
ALL CAUSES	1234	608	171	185	219	51	1248·6
SPECIFIED CAUSES	1227	604	168	185	219	51	1240·7
DISEASES:—							
1. Zymotic Class	249	202	19	9	14	5	289·0
2. Dropsy, Cancer, and others of uncertain seat	56	7	8	20	17	4	46·1
3. Tubercular Class	190	53	78	48	10	1	178·9
4 Of Brain, Nerves, etc. ..	118	52	10	22	28	6	130·7
5. Of Heart, etc.	45	3	6	11	21	4	43·6
6. Of Respiratory Organs ..	208	171	14	35	68	10	269·7
7. Of Digestive Organs ..	61	25	11	14	11	..	55·7
8. Of Kidneys, etc.	17	..	3	6	8	..	14·7
9. Of Uterus; viz.—Puerperal Disease, etc. ..	5	.	4	1	..	..	9·7
10. Of Joints, Bones; viz.—Rheumatism, etc. ..	11	..	3	4	4	..	9·7
11. Of Skin, etc.	6	1	1	1	3	..	3·1
12. Malformations	3	3	..	..	..	..	3·2
13. Debility from Premature Birth, etc.	37	37	..	..	..	..	31·0
14. Atrophy	28	22	..	..	6	..	26·8
15. Age	42	..	..	..	22	20	55·9
16. Sudden	15	9	..	2	4	..	17·0
17. Violence, Privation, etc. ..	46	19	11	12	3	1	56·3
CAUSES NOT SPECIFIED	7	4	3	..	..	..	7·9

DEATHS.

	Males.	Females.	Total.
Deaths during the week	631	603	1234
Average of the ten years 1847-56	..	..	1249
Average corrected to increased population	...	..	1374
Corrected average for corresponding week in ten years 1847-56	633·3	615·3	1248·6
Deaths of people above 90	1	2	3
Deaths in 13 General Hospitals	37	17	54

DEATHS IN SUB-DISTRICTS FROM EPIDEMICS.

	Population. 1851.	Measles.	Scarlatina	Hooping-Cough.	Diarrhœa.	Cholera.	Typhus.
West	376,427	6	9	7	2	..	3
North....	490,396	13	5	11	2	..	8
Central ..	393,256	7	9	11	..	..	6
East	485,522	15	13	8	5	..	12
South	616,635	4	12	11	4	..	10
Total..	2,362,236	45	48	48	13	..	39

METEOROLOGY.

From Observations at the Greenwich Observatory.

Mean height of barometer	30·082 in.
Mean temperature	45·6
Highest point of thermometer	57·0
Lowest point of thermometer	35 0
Mean dew-point temperature	42·8
General direction of wind	S.W.
Whole amount of rain in the week	0·16
Amount of horizontal movement of air in the week ...	990 miles

TO CORRESPONDENTS.

F. G.—We have been informed that the patient whose tongue Mr. Syme excised died last week. Mr. Syme has since written to the *Times* announcing the death.

Mr. Cumming's cases shall appear.

Sanitas.—Dr. Guy's Lectures on Public Health appeared in the *Medical Times* in 1851. They are the best on the subject hitherto published.

Jus.—Butler says—

> "As the law does think it fit
> No butchers shall on juries sit."

But Butler was no lawyer.

Anti-Humbug.—No Surgeon or Physician ought to meet a Homœopathist in consultation.

Dr. Cartwright's letter on the Action of the Heart shall appear next week.

D. E.—We never prescribe in these columns.

Dr. Wray's letter arrived too late for insertion this week.

Dr. Ramsbotham's letter on Dr. Pretty's case shall appear next week.

Communications from Dr. Conolly, Dr. George Johnson, Dr. Hare, Dr. Leared, Dr. Marcet, Mr. Prescott Hewett, Dr. Andrew Clarke, Mr. Paget, Mr. White Cooper, Mr. Holmes Coote, Mr. Bryant, Mr. Henry Smith, etc., will appear early in the new year.

Taraxacum not a Source of Fallacy in Testing for Morphine.

TO THE EDITOR OF THE MEDICAL TIMES AND GAZETTE.

Sir,—Dr. Letheby, with very intelligible promptitude, relieves himself from the further discussion of the Taraxacum question. He does so by a distortion of my letters so transparent that it requires no comment.

But he does not attempt to dispute the substantial facts and evidence adduced by me; I shall, therefore, with your permission, finally terminate my part in this correspondence by simply stating the conclusions to which the evidence in my letters and his own inevitably leads us.

1. Mrs. A. G. took no mixture but the Taraxacum before her death.
2. Consequently the Coroner and Jury could not receive the reactions of any other mixture as explanatory of those of the contents of her stomach.
3. The Taraxacum mixture was "a dark," "ethereal mixture, in a six-sided bottle."
4. Dr. Letheby believed he found one-tenth of a grain of morphine in the stomach.
5. He explained this by the reactions of the "dark ethereal mixture in the six-sided bottle."
6. Dr. Taylor and Mr. Scanlan have stated that Taraxacum is not properly a source of error in testing for morphine.
7. More than four months after the inquest, Dr. Letheby showed Mr. M'Carthy two bottles: one a six-sided one, in which was a mixture made by Mr. M'Carthy himself, and stated by him to contain no organic matter but senna, but which Dr. Letheby says contains the "resinoid;" the other an oval one, containing a pale sherry-coloured mixture.
8. This pale sherry-coloured mixture bore no resemblance to the Taraxacum mixture, which Dr. Letheby alleges it to be.
9. There is no evidence to show how the senna mixture got into the six-sided bottle, nor how the dark ethereal Taraxacum mixture became changed into a pale sherry-coloured mixture.

I am, &c. Norris F. Davey.

Romford, December 21, 1857.

Liquor Potassæ.

TO THE EDITOR OF THE MEDICAL TIMES AND GAZETTE.

Sir,—If the remarks in your number of December 5, 1857, on the action of liquor potassæ are supposed to be quite new it may be as well to call the attention of your readers to the following remark, which occurs in the "London Dispensatory," by Anthony Todd Thomson, M.D. It is true, liquor potassæ is not mentioned, and it is just possible that Dr. Garrod's investigation of the subject may be more complete than that of Dr. Thomson, but that Dr. Thomson was aware of the injurious action of alkalies upon henbane is quite proved from what I now quote; but as what I now send you is so short, may it not be that even all Dr. Thomson knew on the subject is not mentioned?

"It (henbane) is used, generally, in the forms of extract and tincture only; but should not be prescribed in combination with alkalies, as these destroy its narcotic powers in twenty-four hours."

The book from which this is taken was published in 1836. Hoping you will oblige me by inserting this, I am, &c.

2, Short-street, Cambridge, Dec. 18, 1857. E. C.

The series of cases of perineal operation for the relief of prolapsus uteri will be completed after the publication of several other cases.

COMMUNICATIONS have been received from—

Dr. Conolly; Mr. Adams; Dr. Ramsbotham; Mr. Toynbee; Mr. Crosse, Norwich: Dr. Jenner; Dr. Halford; Mr. H. Smith; Dr. Hare; Dr. Chambers; Dr. Cartwright; Mr. Laurence; Mr. Johnstone; Mr. Rivers; Mr. Dennehy; Mr. Jones; Mr. Millikin: Mr. Nourse; Dr. Devenish; Mr. Warren; Mr. Pepper; Mr. Wilde, Dublin; Dr. Laycock, Edinburgh; Mr. Gamgee; Mr. West; Mr. Sands Cox; Mr. James Moore; Surgeon; Dr. Wray; Dr. Curran; Mr. Lovegrove.

APPOINTMENTS FOR THE WEEK.

26. *Saturday (this day).*

Operations at St. Bartholomew's, 1½ p.m.; St. Thomas's, 1 p.m. King's, 2 p.m; Charing Cross, 1 p.m.

28. *Monday.*

Juridical Society, 8 p.m.

Operations at the Royal Free Hospital, 1 p.m.; Metropolitan Free Hospital, 2 p.m.; Orthopædic Hospital, 3 p.m.

29. *Tuesday.*

Royal Institution, 3 p.m.: Professor Faraday, "On Static Electricity."

Operations at Guy's, 1 p.m.; Westminster, 2 p.m.

30. *Wednesday.*

Hunterian Society, 8 p.m.: Mr. Critchett, "On a novel Method of Treatment of Glaucomatous Inflammation of the Eye, with illustrative cases."

Operations at University College Hospital, 2 p.m.; St. Mary's, 1 p.m. Orthopædic Hospital, 3 p.m.

31. *Thursday.*

Operations at St. George's, 1 p.m.; Middlesex, 12½ p.m.; Central London Ophthalmic, 1 p.m.; London, 1½ p.m.

1. *Friday. (Jan).*

Operations at the Moorfields Ophthalmic, 10 a.m.; Westminster Ophthalmic, 1½ p.m.; Great Northern. 2½ p.m.

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Date of Insurance.	Amouut of Additions to Feb. 1, 1851.	Addition made as on Feb. 1, 1856.	Sum payable after Death.
	£ s. d.	£ s. d.	£ s. d.
1820	523 16 0	114 5 0	1638 1 0
1825	382 14 0	103 14 0	1486 8 0
1830	241 12 0	93 2 0	1334 14 0
1835	185 3 0	88 17 0	1274 0 0
1840	128 15 0	84 13 0	1213 8 0
1845	65 15 0	79 18 0	1145 13 0
1850	10 0 0	75 15 0	1085 15 0
1855	—	15 0 0	1015 0 0

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Report of the Directors of the Clerical,

MEDICAL, and GENERAL LIFE ASSURANCE SOCIETY, presented at the Annual General Meeting, held at the Society's Office, No. 13, St. James's-square, London, Friday, November 27, 1857.

It will be in the recollection of the Proprietors, that, at Two Extraordinary General Meetings held on the 1st and 28th of January last, the period for holding the Annual Meetings was altered from March to November, in order that earlier publicity might be given to the state of the Society's affairs at the end of June, that being the period fixed by the Deed for the termination of each financial year. In consequence of this alteration no Meeting took place in March last, and it is therefore now the duty of the Directors to lay before this Meeting a statement of the transactions of the Society for the Two years ending June 30, 1857.

The number of New Policies issued within that period was £1097;
The amount of Assurances granted was £605,300; and
The New Premiums arising therefrom amount to £20,729 per annum.
The Assurance Fund, notwithstanding the payment in cash of £65,384 as Bonus, since the declaration in January, has increased during the two years by no less a sum than £55,676.

From these facts it will be readily perceived, that during the period under notice, the progress of the Society has been in no degree retarded by the effects of the war, by the state of the money market, or by the active competition which has existed amongst kindred Institutions.

After the full and comprehensive statements made at the Extraordinary Meeting in January last, when the SIXTH BONUS was declared, the Directors feel that there is little further now to communicate; but they cannot refrain from mentioning that the Bonus then divided, which averaged 46 per cent. in Reversion, and 27 per cent. in Cash, on the Premiums received since 1851, has given general satisfaction, and has tended materially to sustain and advance the high estimation in which the Society has been so long held by the Public.

An Account of the Proceedings at the last BONUS MEETING, setting forth the Assets and Liabilities of the Society, and also the FAVOURABLE POSITION IN WHICH PERSONS WHO NOW ASSURE will be placed, can be obtained on application.

GEORGE H. PINCKARD, Actuary.
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N.B.—A Fee of ONE GUINEA is paid to the MEDICAL ATTENDANTS of all Persons proposing to Assure.